

# THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. LXXII. NEW YORK, SATURDAY, FEBRUARY 26, 1898.

No. 9.

## ORIGINAL ARTICLES.

### THE TREATMENT OF DELIRIUM.<sup>1</sup>

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THE subject to which I ask attention is very comprehensive, and some of you may question the advisability of giving it consideration as an entity. I believe, however, that there is as much justification for discussing the treatment of delirium as there is for discussing fever, pain, headache, or constipation, which are usually considered individually, although all of them are symptoms. Moreover, although delirium is a symptom, occasionally it is the only one, or I might say the entire condition, demanding treatment.

Preliminary to a discussion of the treatment of delirium it is necessary to refer briefly to its nature and varieties.

Delirium is a general disturbance or perversion of consciousness characterized by an apparent exaltation of mental processes, which close examination, however, shows to be in reality a diminution or restriction in apperception, although association may be accelerated and in consequence seemingly enriched. It manifests itself in detail by some degree of mental irritation and confusion, by more or less transitory delusions and fleeting hallucinations, by disordered, senseless speech, and by motor unrest. It varies in intensity from the slightest so-called "flightiness," up to a most intense maniacal condition. I do not use the term delirium synonymously with insanity, although naturally admitting that the former presupposes an unsound mind during the time of its occurrence. I wish to speak principally of the temporary mental disturbance occurring with bodily diseases, and not at all of the more or less highly organized, fixed, or changeable deliria of paranoia, of chronic mania, melancholia, general paresis, and the like. In other words, in my own mind the term delirium is not given the wide application which the modern French writer accords it.

For the purpose of discussion, and in no way to be considered absolutely comprehensive, delirium

may be classified into: Primary and secondary delirium.

Primary delirium, delirium acutum, delirium grave, is not a disease *sui generis*. In other words, it is not an individual affection, but a condition of varying mental disturbance, which occasionally attends different states of bodily disorder, such as collapse, intoxication, katatonia, etc., although it is often, if not always, dependent upon, or at least associated with, demonstrable changes in the cortex of the brain.

Secondary delirium is by far the more common and the less understood. It may be subdivided into the delirium of (1) infection, (2) intoxication, (3) exhaustion, (4) irritation (peripheral and central), and (5) senility.

The deliria of infection are more common in the young and in the able-bodied. They occur particularly with the diseases that are dependent upon specific organisms, such as typhoid fever, pneumonia, scarlet fever, yellow fever, puerperal fever, pyemia, etc., although delirium occurs with analogous diseases which have not yet been proven to be dependent upon specific organisms.

Deliria of intoxication may be subdivided into endogenous and exogenous. The endogenous comprise those dependent upon septic intoxicants, and are included under the head of sapremia, uremia, cholemia, diabetes, auto-intoxication, insolation, etc., while the exogenous include those due to alcohol, the drugs constituting the group of midriatics, morphin, cocain, mineral poisons, iodoform, and the like.

The deliria of exhaustion may be subdivided into those due to inanition, to acute anemia, such as results from hemorrhage, or from the presence in the blood of some powerful hemic dissociation substance, such as exalgine, the plasmodium of malignant forms of malaria, wasting diseases, excessive lactation, and the like.

The deliria of central or peripheral irritation may be subdivided into those due to local injury of the brain, such as blood clot from accidental trauma or surgical operation, to meningitis, acute encephalitis, or to other central diseases. The peripheral irritation or excitation which may be associated with delirium, is pain, a condition that could not be manifested without central interpretation. Delirium may also be due to, or associated with, states of central depression, such as those of epilepsy, hysteria, etc.

<sup>1</sup> Read at the meeting of the Northwestern Medical and Surgical Society of New York, January 19, 1898.

The delirium of senility requires no subdivision, for although it occurs under the apparent auspices of different exciting factors, it in reality is conditioned by the pathologic state of the vascular system incident to old age.

This classification will be found sufficiently comprehensive for practical purposes, and may afford a working basis for intelligent discussion of the subject. It may be remarked that no particular mention has been made of the delirium following surgical operations. This has been done advisedly because although such delirium is not of very infrequent occurrence, it is due to one of three things, *vis.*: to infection, intoxication, or exhaustion, and thus falls under one of the captions mentioned above.

The diagnosis of delirium is very easy, and the determination of its intensity or degree of severity depends only upon observation. But neither its diagnosis nor the determination of its severity is of any considerable service in suggesting appropriate therapy. This can only be decided upon when the causation and the pathologic associations of the delirium have been discovered. I shall very briefly take up in turn the varieties of delirium classified according to their causes as mentioned above. In discussing these varieties of delirium one has naturally an inclination to say something concerning their symptomatic individualities, and to speak of the morbid conditions which they accompany and are dependent upon. So far as possible I shall limit my remarks to their treatment, however.

The delirium of the disease which is now universally known as acute delirium, or delirium grave, resembles very much that which is associated with febrile diseases. It is ordinarily accompanied by considerable rise of temperature which has no definite course, great prostration, and by rapid development of an asthenic or typhoid state. The treatment ordinarily resolves itself into the fulfilment of two indications, *vis.*: the obtention of sleep and the maintenance of the patient's vitality. All accessory treatment should be contributory to these two ends. Without entering into a discussion concerning the virtues of the various sleep-producing measures, I trust that I shall be permitted to say that the first end in view may be more readily accomplished by the cold pack and the administration of sulphonal or trional in small doses, 10 to 20 grains, repeated every three hours, than by any other measure. When sulphonal and trional combined with the measures just enumerated fail to give the desired sleep, chloral hydrate may be given in full doses, but I never use it as the initial hypnotic in this condition unless there are some special indications. In those cases early attended by great restlessness and excitement, the cold pack

is of signal service, both in conserving the patient's strength and in soothing him to a condition anticipatory of slumber. Personally, I am very adverse to the administration of drugs which produce hypnosis and coincident or subsequent depression, such as the bromids, opium, chloralamid, and hyoscyamin, although the latter is not usually rated as a hypnotic, but as a general motor sedative. Quite as important in the early stages, and much more so in the later, is the careful, judicious administration of partially or readily digested food in small quantities and of a temperature equal to that of the body. Specific enumeration of such nutriment does not seem necessary; but sufficient emphasis cannot be laid upon the fact that in reality the chances of recovery from an attack of acute delirium stand in definite relationship to the patient's capacity to retain and absorb food. Oftentimes it is necessary to indulge in forced feeding, and no time should be lost in resorting to the stomach tube. If the stomach will retain small quantities of nutriment, this method has great advantages over that of rectal feeding, no matter how carefully the latter is done. As in all acute asthenic conditions, stimulants must be given early, and this is one of the diseases in which alcohol supersedes in efficaciousness all other forms of stimulation. There should be no hesitancy in resorting to its early employment, and comparatively small experience soon teaches that more alcohol can be given with benefit in this disease than in any other form of intracranial lesion. In this, it is the exception to the rule which applies to the administration of alcoholic stimulants in diseases of the brain. Naturally, the details of treatment vary with the causative factors of the acute delirium.

Those cases of delirium which are complications or sequences of other diseases require a more varied therapy directed toward the latter. Formerly it was considered of prime importance to employ what may be called revulsive treatment, such as the administration of salines, the application of leeches to the scalp, and blisters behind the ears, but at the present day such measures are considered barbarous. The treatment may be summarized in a few words: Induce sleep, maintain nutrition, fight the progressive asthenia with stimulants, counteract the motorial unrest and fever with the cold pack, and carefully guard the period of convalescence. A good nurse is far more useful than an indifferent physician. The most important warning is: Never give motor depressants, even though apparently they are momentarily indicated. They are in reality therapeutic boomerangs. If it be borne in mind that in every case of delirium acutum, or delirium grave, we are dealing with acute parenchymatous encephalitis, we

will rarely make the mistake of administering motor depressants to overcome motorial unrest.

The treatment of the deliria which I have called secondary is a very much more important subject to the general practitioner, for they are common concomitants of the diseases which he encounters. As has already been said, delirium frequently occurs with the infectious diseases, in many of the minor forms of which it is so slight and transitory that it requires no treatment. Such are the deliria occurring in young children with measles, infection of the gastro-intestinal tract, and bronchopneumonia. In other diseases, and particularly in typhoid fever, pneumonia, and scarlet fever, its early occurrence is a danger signal which should prompt immediate action. Initial delirium is not very common in typhoid fever, nor in pneumonia. When it occurs in the former, it manifests itself either in a mild form, preceded or accompanied by a degree of anxiety which is soon followed by depression, and what is colloquially termed "flightiness." Such a mental state has absolutely no relationship to the temperature, and may even precede the occurrence of the latter. In other cases, the delirium is so severe as to constitute actual mania. These cases are likewise infrequently attended with high temperatures. They differ very materially both in their clinical manifestations and in their indications for treatment from the delirium which occurs during the third and fourth weeks of the disease. The former variety stands in direct relationship to the amount and intensity of infection, while the latter is frequently, but not always, an exhaustion delirium. The treatment of initial delirium of typhoid fever should be directed particularly to counteracting the effects of the infection on the nervous system, and, personally, I am convinced that no form of therapy meets the requirements so efficaciously as the administration of one or two large doses of calomel, followed by the injection of a large amount of saline solution into the intestines, or subcutaneously beneath the mammary gland. In two cases of typhoid fever with initial delirium, both of the acute maniacal form, the adoption of high rectal injections of warm saline solution was followed by most gratifying results, and had not such been the case I should not have had the lightest hesitation in using it subcutaneously. Its presence in the blood seems to have a beneficial influence in neutralizing or counteracting the pernicious action of the poisonous matters on the vital centers. The treatment of delirium occurring in the later stages of typhoid fever does not differ materially from the treatment of delirium due to other exhausting conditions.

In this connection I desire to say a few words con-

cerning the relationship of fever to the occurrence of delirium, not alone in typhoid fever, but in other febrile diseases. There is a well-defined conviction in the minds of many physicians that the occurrence of delirium stands in definite relationship to the degree of febrility. Personally, I do not share this opinion, and am inclined to the view that fever *per se* plays absolutely no part in the genesis of delirium, and consequently that treatment directed immediately to the fever is of no avail in counteracting the delirium, except in so far as such treatment is operative against the factors upon which the delirium is dependent. I anticipate that this attitude may not receive the endorsement of those who advocate the most rational and most efficacious plan of treating infectious disease to-day, the plan which we may for brevity's sake call the hydric method.

If hyperthermia is in itself sufficient to cause delirium, this symptom should be a concomitant of hyperthermia artificially produced, and a common symptom of disease attended by high temperature. A few minutes' retrospection on the part of any one of us will, I believe, show that this is not a fact. For instance, witness the colossal rise of temperature which sometimes occurs in malarial infection, in rheumatism, and occasionally even in insolation, while the mental facilities remain unimpaired. On the contrary, the antithesis of delirium is quite as frequently the mental state in such cases. It cannot be legitimately said that because the application of cold water, according to the most approved plan, in the acute febrile diseases has a salutary action in preventing delirium and in controlling it when it does occur, that the hydric procedure prevents or overcomes the delirium by lowering the temperature. On the contrary, the cold water acts by facilitating the elimination of the poisons in the blood which are acting deleteriously upon the anterior poles of the cerebral hemisphere; it assists the blood to oxidize and consume these injurious products, and it stimulates the vital centers to renewed effort in their combat with the overwhelming agencies which are manifesting their peccant activities by enshrouding the sensorium. True it is that the hydric measures simultaneously reduce the temperature, and their beneficial effects on these two symptoms may be coincident, but this in no way should foster the belief that the two are interdependent. On the contrary, it seems to me that fever is conditioned by a mechanism quite apart from that which conditions delirium, and that to speak of febrile delirium to cover the deliria of infectious diseases is an unwarrantable assumption of the interdependency of these two symptoms.

Initial delirium in the pneumonia of the adult al-



ways means one of two things: the occurrence of the disease in an alcoholic subject, or an extremely severe infection. Occurring in the infant it suggests that we have to do not only with a severe infection but with an apical involvement as well. If alcoholism, or, better said, the alcoholic habit, can be excluded, the chances are that the patient has a streptococcus pneumonia, and not a diplococcus or tuberculous pneumonia, as initial delirium is of much more common occurrence in the former variety. As an indication for the election of therapy, it matters not very much upon what the delirium is dependent, as the treatment in every instance may be summarized in one word: stimulation, unless, indeed, the administration of a specific antitoxin be considered. The election of the stimulant, or combination of stimulants, may vary. If the patient be alcoholic, it will be necessary to continue administering to him the prop that served him so ill in times when he could make his own selection, and to combine it with strychnin; while in non-alcoholic cases the more diffusible stimulants and digitalis may be indicated. Here again it is necessary to say a word regarding the selection of a hypnotic. In children, and in non-alcoholic adults, chloral in small doses is the best hypnotic, especially in the beginning of the disease. At least, this has been my individual experience. For the insomnia and delirium occurring later in the course of the affection, and in alcoholics, sulphonal has served me more satisfactorily, possibly because it is always given in hot milk, which of itself is not inconsequential as a stimulant and sedative.

The deliria attending scarlet fever, and, in fact, I may say all of the eruptive diseases, are best counteracted in the early stages by the application of the ice cap and the cold pack. On account of the frequency of renal complications, and the widespread belief on the part of the laity that cold water makes the eruption "strike in," there is often great objection by parents when the cold pack is suggested, but I am sure that no other measure or combination of measures compares in efficaciousness with it in the treatment of this symptom, even though it is not associated with hyperthermia.

The delirium attending the severer infections, such as puerperal fever and pyemia, requires practically the same treatment as that accompanying septic pneumonia. In all of these, as in delirium acutum, sleep must be obtained at all hazards, and the prop of the patient's vitality, *viz.*: his nutrition, must be constantly bolstered. Here the mistake of giving motor-depressants, such as the bromids, chloral, and hyoscyamin, should, I believe, never be made. It should also be said that it matters not

how maniacal the patient may become, mechanical restraint should not be employed except as a last resort. All mechanical restraint, with the exception of that which makes captive the legs alone impedes respiratory freedom, and thus becomes a very powerful influence in contributing to asthenic consolidation of the lungs. The restraining influence of one or more nurses, combined with the sleep-producing potency of 20 grains of sulphonal or trional, administered in hot milk or in some form of alcohol, is far more efficacious.

Passing now to a consideration of the deliria of intoxication, I shall say very little concerning the endogenous varieties, as the treatment here consists of efforts to overcome the source of the *materies morbi*, to counteract its effect upon the central nervous system, and to secure its elimination from the system. I have no faith in my ability to say anything that would interest or be worthy of attention concerning the treatment of sapremia, uremia, cholemia, diabetes, etc., and shall content myself in allowing these to pass without more direct attention than is contained in the general treatment of delirium. I may say parenthetically, however, that if two important facts be kept in mind concerning the toxic and autotoxic deliria the treatment will be very much simplified. These are: Nature should be assisted to get rid of at least some of the poison in the system, then strike at the source of the intoxication. If the latter be a wound that is filled with iodoform the removal of the latter is a very evident duty, but if the absorbent surface be the entire gastro-intestinal tract, and the *materies morbi*, the as yet unknown toxin which produces the clinical phenomena of insolation, the task is much more difficult. But, as will be said later, after all, the important matter first of all is to determine the pathologic association of the delirium.

In the treatment of deliria of exogenous origin I have had a considerable experience, and consequently some facts have been impressed upon me. Of the deliria having their origin in toxic substances coming from without, delirium tremens is the most important, because it is so frequently encountered and because it is so uniformly fatal after the first or second attack. All toxic deliria are associated with more or less profound asthenia, and the first aim of treatment should be the counteraction of this asthenia while simultaneously fulfilling a more pointed indication. In alcoholic subjects there has almost invariably been a prolonged and outrageous indulgence in substances which destroy the metabolic functions of the economy, and before measures can be taken to counteract the influence of the poison itself upon the nervous system the *prima via*, and the



avenues leading up to it, must be carefully attended to. Therefore, of paramount importance and antedating all other therapeutic indulgence is the introduction of small quantities of partially digested or predigested nourishment into the patient's alimentary tract. There should be no hesitation in resorting to uncommon avenues of introducing nourishment if the patient, because of anorexia, or under the dominancy of a delusion or hallucination, refuses food. I am so convinced that at least one-half of the patients in the early stages of delirium tremens would weather as satisfactorily the danger incident to their vice by this plan of treatment alone that I not infrequently employ it to the exclusion of all other treatment save that of some of the rapidly acting hypnotics which are not depressants. To cite one illustration: The last case of delirium tremens which I observed was in a man who is as yet under observation, and who came to me with a record of having consumed upward of a quart of whisky every day for seven previous months, in addition to from four to six grains of morphin, taken hypodermically. His mental and physical conditions mirrored the typical description of *mania a potu*, with a well-pronounced typhoid state. He received no other treatment than attention to his nutrition, such as suggested above, careful nursing, the use of the warm pack twice daily, and repeated doses of trional in small quantities, taken in hot milk. He made a good recovery, and at the end of a fortnight, being well advanced in the convalescent stage, the administration of strychnin in  $\frac{1}{3}$ -grain doses three times daily was begun.

I know how extremely common it is for physicians, when they find themselves face to face for the first time with a patient suffering from delirium tremens, to write a prescription containing about 15 grains of chloral, 30 of bromid, and from 3 to 6 drops of tincture of digitalis, and instruct that this be administered every four hours, and at the same time give more or less perfunctory instructions regarding the diet. At a subsequent visit, if the patient is very delirious and difficult to restrain, they give a hypodermic injection of morphin, and possibly leave orders that it be repeated, if necessary. Candor compels me to state that I have never been able to convince myself that such a combination does not very frequently, by adding to the patients asthenia and to the depravity of the blood, do more harm than good, and I confess that I should have to be pushed very hard before indulging in the administration of a mixture recommended in one of the most recent treatises on therapeutics. The writer of the article to which I allude says that it is his custom to give dram doses of the bromid of ammonium, 15 grains of chloral, and

$\frac{1}{4}$  grain of morphin, in order to induce sleep. Such a mixture, it seems to me, has entirely too high a potentiality of dangerousness to give to any person, but particularly to one whose vitality is at a low ebb. As a matter of fact, I never use the bromid and chloral mixture, nor hyoscyamus, until four other hypnotics have failed me, the four being sulphonal, trional, paraldehyd, and chloralamid. If the stimulants, strychnin and digitalis, are properly used, and if the indications for maintaining the patient's strength as mentioned above are fulfilled, the depressant drugs will rarely be found necessary.

I am not inclined to the use of alcoholic stimulants in the treatment of delirium tremens, unless this condition is associated with pneumonia, as, unfortunately, it not infrequently is. When indications of this complication show themselves, whisky and brandy freely given will sometimes save the patient's life.

The delirium of exhaustion is the one which is the least frequently interpreted of all the deliria. It seems difficult for some to admit the reality of its occurrence, but although it is one of the rare forms, there can be no doubt of its existence. Its association suggests the indications for treatment, and there would be no difficulty in following out the proper therapeutic plan were it not that its recognition must grow out of a process of exclusion. The treatment is symptomatic, and should be directed particularly to overcoming exhaustion.

Senile delirium is in reality a delirium of exhaustion, remotely conditioned by pathologic changes of the blood-vessels, and immediately by disordered intracranial blood-supply. Its chief clinical characteristics are that it is of the so-called "busy," active kind, and it almost invariably occurs at night. During the day the patient may have customary mental lucidity. In addition to the ordinary measures to maintain the patient's nutrition, special precautions should be taken to prevent deleterious lowering of vitality in the early morning hours. If such a patient is taking one of the iodine salts and nitroglycerin, it is very advisable to give him a full dose on retiring, and also a liberal amount of warm peptonized milk and to repeat this once or twice during the night, even though it be necessary to awaken the patient. Alcoholic stimulants are likewise of signal service in preventing delirium of this nature. Their efficaciousness seems to be increased if administered in hot water or in hot milk. The value of dry heat to the extremities should not be overlooked.

The deliria of central or peripheral irritation is a very large subject, and one that I cannot attempt to handle in a brief consideration of this kind. From the slight experience which I have had with cerebral injuries, either accidental or surgical, I am

inclined to the opinion that surgeons are more apt to seek the cause of the delirium in infection than they are in local irritation. There may be ample reasons for this, but nevertheless delirium is so frequently a symptom of meningeal and cerebral irritation, unattended with any considerable infection or intoxication, that its occurrence should cause no astonishment. When the irritation is of a post-traumatic origin, and the delirium is continuous, this should be sufficient justification to warrant operative interference.

The delirium associated with states of central depression, such as epilepsy and hysteria, demand the greatest circumspection in their diagnosis and interpretation. Psychic epilepsy, that is epilepsy in which the customary motor explosion, let us say, is replaced by psychic phenomena of an uncontrollable nature, is, proportionately to the ordinary epilepsy, rather uncommon; and this, perhaps, accounts for its lack of recognition when it does occur. The psychic equivalent may assume the form of delirium, even from the very beginning, or an epilepsy starting in as an ordinary motor-epilepsy may alternate in its explosions, one attack being externalized by a convulsion, another by a delirious state. The same is true of hysteria, although hysteric delirium is relatively more common than epileptic delirium. In this connection it may be well to say a word of the delirium which occasionally accompanies chorea, constituting chorea insaniens. Occasionally there is superadded to the typical symptoms of a severe Sydenham's chorea, a profound state of unsystematized delirium. It has been suggested by some writers that the delirium is the expression of an extensive encephalitis, it being known that in some cases of chorea which have proved fatal, vascular changes pointing to a mild degree of parenchymatous inflammation have been found. Personally, I am not inclined to this view. I believe that the delirium from which chorea insaniens takes its descriptive adjective is analogous and comparable to the delirium which is occasionally an accompaniment of rheumatism, and that its causation is to be sought for in the profound dissociation of the component parts of the blood occurring in both of these diseases.

The treatment of chorea insaniens would be very simple were it not for the profound vascular depravity behind the chorea, for this militates against the administration of a drug, exalgin, which if given in 3- to 5-grain doses and repeated every two or three hours, would soon stop the delirium, at least temporarily; but as exalgin tends to liberate the hemoglobin and thus act as a severe hemolytic, it should never be used. The general treatment of asthenic delirium, enforced rest in bed and the administration

of small doses of bromid, suffices to control the attacks in most cases. This is one of the forms of deliria in which hyoscyamus should never be given.

The treatment of epileptic delirium is practically the treatment of status epilepticus, save that the necessity for giving stimulants, which is so patent in the latter condition, is not so urgent. In reality, the treatment is small doses of one of the bromid salts; let us say, 10 grains every hour or two, which with mechanical restraint, usually suffices to terminate an attack. The treatment of hysteric delirium oftentimes baffles every resource of the physician, and then after resisting them all, disappears spontaneously. The most potent element in its treatment is complete isolation and the application of cold packs, although in many of these cases the salts of hyoscyamin given in doses up to their full physiologic limit are of the greatest benefit.

*General Remarks on the Treatment of Delirium.*—After thus wandering over a very large subject, and touching here and there some of the more important points, I should like to ask indulgence for a few general remarks on the treatment of delirium, fully cognizant that therapeutics must vary in every case, and that the indications in one kind of delirium may not suffice or be sufficient in another. Nevertheless, there are a few underlying principles in the treatment of all deliria, and it is these which I shall here endeavor to lay down, prefacing my remarks by saying that, in the opinion of the writer, sedatives are used too frequently and too indiscriminately. Bromids, especially, are frequently given offhand, in large doses, and over quite an extended period, apparently forgetful of the fact that they may, by adding to the vascular depravity which is so often at the bottom of the delirium accompanying asthenic states, intensify and prolong the duration of the symptoms for which they are given.

The general indications in the treatment of delirium are first to secure sleep; second, to overcome motor unrest; third, to prop up and maintain the patient's vitality by contributing to his nutrition, and fourth, to discover and remove the cause upon which the delirium is dependent.

To meet the first indication hypnotics are almost always required, although it should never for a moment be forgotten that an hour's sleep induced by measures taken to fulfil the third condition is far more salutary than three-hours' sleep obtained by the use of a hypnotic. Moreover, that in many forms of asthenic delirium, whether the asthenia be induced by infection, intoxication, exhaustion, senility, or what not, sleep is more readily induced and maintained by measures directed immediately against the asthenia than against the insomnia. In the

selection of a hypnotic the one least depressant to the patient's vitality and least apt to be followed by depression should always be given preference. The motor depressants should never be used in the delirium accompanying the asthenic state, except as the very last resort. In certain forms of sthenic delirium, and especially those in which a sedative effect cannot be produced by the external application of water, drugs which are motor depressants and at the same time hypnotics may be used with the greatest benefit. Of these, the alkaloids of *hyoscyamus* are the most available.

The second principle is that great care should be exercised in the application of mechanical restraint in all forms of asthenic delirium, lest the encroachment on respiratory capacity lead to pulmonary complications which jeopardize the life of the patient. Whenever possible, physical restraint is very much less dangerous.

Concerning the third principle, that of maintaining the patient's vitality, I have perhaps already said sufficient.

The meeting of the fourth indication, *viz.*: the discovery and removal of the cause of the delirium, is after all the most essential procedure in the treatment of this symptom. To do this the pathologic association must be determined, and then our ammunition leveled directly against it, while simultaneously the three first enumerated principles are guiding us in symptomatic therapy.

#### PNEUMOTOMY.

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AFTER the invasion and conquest of the abdomen and head, surgeons have in recent years turned their attention to the numerous diseases of the chest which have baffled medical treatment. Although pneumotomy is mentioned as early as 1710 by Baglivi and advised by Bôrhavé, Pouteau, and others, it is quite evident that the operation was undertaken unknowingly, in the rare cases in which the lesions resembled empyema or abscess of the chest-wall. Hence, as Terrier justly remarks in his masterly "Lessons on the Surgery of the Pleura and Lung," the caption pulmonary surgery should be reserved for those cases in which the chest-wall and pleura are deliberately traversed with the intention of attacking an intrapulmonary lesion." Truc's valuable monograph (1885) was the first important contribution to this subject. In 1894, Fabricans of Cracow tabulated all the cases in the literature of the previous twenty years, amounting to thirty-one

cases of pneumotomy for abscess, and twenty-six for gangrene. The following year, with Reclus' admirable address before the French Surgical Congress, and the extensive discussions which followed it, the question assumed both a scientific and practical aspect. Of late, French surgeons have done much, by careful clinical, physiologic, and experimental investigation, to widen the heretofore very narrow limits of pulmonary surgery; and already many surgeons of prominence believe this branch of the art is near its greatest height, if only the indications promising complete success be counted (Paget, Kochler). When, however, we consider Delagéniere's audacious exploratory pleurotomy, which he places on the same footing as laparotomy and trepanation for exploratory purposes, we cannot refrain from suggesting that the limitations of pulmonary surgery are as yet undefined.

The great obstacle to progress in this direction is the absence of precision in pulmonary localization, and regarding this, it is to be hoped that surgeons will utilize the results obtained by Bouchard by means of the X-rays, which may justly be considered as valuable in the examination of the chest as in the diagnosis of bone lesions. We regard the illumination of the chest as of great diagnostic value in the detection of patches of consolidation which, in consequence of their diminished area or depth from the chest-wall, elude the results of percussion and auscultation.

The following case of pneumotomy is reported on account of several interesting clinical features, and also as partly illustrative of some of Delagéniere's suggestions in regard to the exploration and drainage of pulmonary lesions:

J. M., aged seven years, weight forty-four pounds. There was no history of tuberculosis in the family. Three weeks before, according to the statement of the attending physicians, the patient contracted croupous pneumonia, primarily involving the lower lobe of the right lung, and, subsequently, the lower and part of the upper lobe of the left lung. The pneumonia in the right lung underwent resolution, but the areas of consolidation in the upper portion of the lower lobe of the left lung persisted. The symptoms presented—night-sweats, fever, rapid and progressive emaciation, and occasional slight chills—were suggestive of an acute suppurative process involving the lung; temperature, 104° F.; pulse, 140; respiration, 24.

The first exploratory puncture, at the lowest portion of the area of dulness in the mid-axillary line, proved unsatisfactory; the second, at a higher and deeper point, revealed the presence of thick pus. The needle did not oscillate with the movements of respiration; which fact led us to affirm the presence of pleural adhesions directly over the affected portion of the lung. Pneumotomy was performed two



hours later through a U-shaped incision of the skin and muscles. Nine cm. ( $3\frac{3}{4}$  inches) of the seventh and eighth ribs, between the anterior axillary and scapular lines, were resected. The pleura was opened after a fruitless attempt at extrapleural palpation by Tuffier's method. With the use of retractors the entire region could be explored with the greatest ease and satisfaction. The only adhesions present were about 7 cm. ( $2\frac{3}{4}$  inches) above the opening. Inspection and manual exploration showed the lung to be free below the adhesions and markedly hepatized. There was no effusion in the costodiaphragmatic cul-de-sac. After shutting off the pleural cavity with gauze, the lung was incised to the depth of 3 cm. ( $1\frac{1}{4}$  inches), with the Paquelin cautery, heated to a dark-red color. About 75 c. c. ( $2\frac{1}{4}$  oz.) of thick, non-fetid pus immediately escaped. The pulmonary opening was then increased, and the cavity found to extend upward toward the surface of the pleura. Its walls were covered with sphacelated tissue, but did not seem thickened. After breaking up a number of trabeculae, and searching in vain for secondary purulent collections, the cavity was thoroughly swabbed and gently packed with gauze. The gauze in the pleural cavity was then removed, and the skin and muscle flap sutured. At no time during the operation was there any trouble from hemorrhage. Cultures were made from the pus, but, owing to an accident in the laboratory, the result remained doubtful.

After the operation there was an immediate improvement in the temperature, which fell  $3^{\circ}$  F.; the pulse and respiration were only slightly modified. Patient ceased to lose weight. Excepting the slow elimination of the sphacelated walls and the consequent tardy appearance of healthy granulations, the wound offered nothing of interest. Four weeks after the operation friction sounds could still be heard at the point already mentioned. One month later the wound had entirely closed, and nothing in or over either lung could be elicited by physical examination. Skiagraphy then revealed opacity at the base of the left lung, probably due to cicatricial tissue. The mobility of the lung border at this point was absent. The lower border of the lung on this side was 2 cm. ( $\frac{3}{4}$  of an inch) higher than the corresponding border of the right lung.

Although the exploring needle revealed the seat and nature of the pulmonary lesion, it was, nevertheless, misleading in regard to the pleural adhesions. The absence of oscillations may not, therefore, always indicate the existence of adhesions, a fact already mentioned by Quincke, Rochard, and Terrier. In the diagnosis of abscess of the lung, the results furnished by the exploring needle are frequently as unreliable as in other regions; the pus may be present and not escape through the needle, or the cavity may be nearly or entirely empty after an attack of coughing. On the other hand, the use of the needle is not devoid of danger; death from pneumothorax in a case of emphysema has been reported by Fränkel, and purulent pleurisy is men-

tioned as a complication by Israel, Pochat, and Winge. Exploratory puncture should, therefore, constitute the first step of the operation, serving as a guide to the seat of the intrapulmonary lesion.

It will be noticed that after finding the adhesions above the pleural opening it was, nevertheless, not considered proper to make a new incision and thus transfer the field of operation to a higher level immediately over the adhesions, as in a successful case reported by Bazy. If a similar plan had been adopted in the present case the object of the operation would not have been attained. The reasons for preferring the direct low pulmonary incision were: (1) the results of the exploratory puncture; (2) the desire to secure the best possible drainage, an indispensable element, as Delagénier has so clearly demonstrated. Moreover, it was inferred that if the abscess extended to a point in the vicinity of the pleural adhesions it could be easily laid open by extending the pulmonary incision directly upward by means of the cautery.

Too much stress cannot be laid upon the facility afforded by a liberal resection of the ribs in all cases of exploration of the lungs. De Cerenville, Truc, Lauenstein, and many others have insisted upon this and have shown that the gravity of the operation is thereby diminished, and, in purulent intrapulmonary lesions, the retraction of the cavity and apposition of its walls greatly favored. This is especially true in abscesses of long standing, for in such cases the process of repair is notably influenced by an extensive sclerotic zone, chronic bronchitis, and dilatation. Simple resection of one or two ribs may then prove inadequate, and thoracoplasty by Schede's method becomes necessary. Cases of respiratory trouble attributed to extensive resection of ribs have been reported by various surgeons; but it is quite improbable that the accidents were caused by the procedure, for very much more extensive operations on the chest-wall have since been made without being followed by similar accidents (Terrier). Spinal deviation (Ollier) has likewise been mentioned as a sequel.

The stripping of the parietal pleura off from the ribs in Tuffier's method of extrapleural explorations is not as easily accomplished as may be imagined; it requires considerable practice on the cadaver. Terrier states that he saw Tuffier himself tear the pleura, but that no symptoms suggesting pneumothorax ensued. Lejars and Brun each report a failure with this method. Surgeons differ greatly regarding the extent of the pleural incision in pleural and pulmonary explorations. Bazy prefers a small opening sufficient to permit digital exploration; Delagénier, in three successful cases, made a liberal

opening through which the entire hand could be introduced. Terrier inclines toward the latter method. Truc holds that absence of adhesions over the pulmonary abscess constitutes an absolute indication against operation. This rule, although supported by some eminent surgeons (Quincke, Volkmann), is questionable, and happily passing into oblivion. Terrier justly remarks: "In either case one should unhesitatingly continue the operation and not be influenced by a condition of such meager interest." In the majority of cases the preliminary use of caustics (Quincke), iodoform gauze (Neuber), or needles (De Cereville), in view of creating adhesions, may be condemned for very much the same reasons as all stomach and gall-bladder operations performed in two stages. Many surgeons advise suturing the two layers of pleura around the seat of operation before incising the lung (Godlee, Roun), but such a procedure must necessarily be restricted to a group of well localized, circumscribed lesions (gangrene and apical cavities especially). In the present case, it was thought wiser to first shut off the pleural cavity with gauze and explore the lung before suturing.

The avoidance of pneumothorax has greatly occupied all those interested in pulmonary surgery, and, although many expedients have been proposed, the question still awaits a practical solution. Quénu advises tracheotomy in cases of large opening of the pleural cavity; Delorme considers this procedure unjustifiable, and resorts to cocain anesthesia or incomplete chloform narcosis. Tuffier and Hallion, in a series of interesting and precise experiments, have demonstrated that a slight increase in the intra-bronchial pressure does not interfere with the pulmonary or general circulation. Tuffier, therefore, rejects tracheotomy, which, in his opinion, is as dangerous as pneumotomy, and seeks to neutralize the retractility of the lung with laryngo-tracheal insufflations by means of a special laryngeal tube. Experience alone will determine the value of this ingenious method. More audacious than others, Delangénier, the clever surgeon of Mans, does not anticipate much danger from pneumothorax, and in his exploratory pleurotomy, after resecting the eighth, ninth, and tenth ribs, he opens the pleura sufficiently to admit the entire hand; the lung is seized with forceps and secured to the parietal pleura. In considering this bold but nevertheless successful procedure, it becomes quite evident that operative pneumothorax is not as dangerous as heretofore believed. In the course of nephrectomy, the pleura has been accidentally incised, and a similar accident occurred while removing a hydatid cyst involving the convex surface of the liver. No alarming symptoms developed in either instance.

In the present case the cautery, heated to a dark-red color, was used for incising the lung on account of the marked hyperemic condition. According to Terrier, the knife should be reserved for those cases of dense sclerosed tissue in which hemorrhage is not feared.

Whilst the possibility of recovery without operation is admitted in certain cases of abscess of the lung, either by absorption or by discharge into the air-passages, the fact, nevertheless, remains that basic cavities are frequently ill-drained through the bronchial passages; septic absorption is a common occurrence, and sudden suffocation due to rupture into a bronchus is not rare. Furthermore, in large cavities of the apical region, in spite of bronchial evacuation, the process of repair is greatly hindered and sometimes rendered impossible by the rigidity of the thoracic walls. In the present case, the septic condition constituted the primary indication for operation, and, judging from the absence of cough, the extensive sphacelated walls, and surrounding congested area, it may be safely said that nothing short of surgical interference would have been of the slightest value. As Reclus remarks, "Wherever there is an abscess there ought to be an operation; no need to wait for fever, septic absorption, and the resulting alarming condition. Delay is unjustifiable, save perhaps in very small abscesses draining easily and rapidly into the air-passages or in multiple abscesses requiring for their evacuation unwarrantable mangling of the chest. Fortunately, these latter cases are exceptional." Even if the intrapulmonary exploration proves negative in certain purulent lesions, the operation may, nevertheless, do good, for in numerous cases it has been noticed that the cavity subsequently ulcerated and broke through its wall at this point of least resistance. (Quincke, Reclus, and Groube.) As illustrative of this point, and also of the difficulties experienced in localizing lesions of the middle and lower part of the lungs, in spite of direct exploration, and, furthermore, as an example of the tolerance of the lung to traumatism, we recall a case under the care of a surgeon of this city, at the French Hospital, in 1893.

A man, aged forty years, contracted severe bronchitis a year previously, and at the time of admittance to the hospital expectorated large quantities of very fetid pus every morning. No tubercle bacilli were present. Physical examination pointed to a cavity in the lower portion of the right lung, with corresponding dry pleurisy. Ten cm. (4 inches) of the eighth and ninth ribs were resected in the axillary line, the pleura incised and found adherent. The Paquelin cautery was then sunk into the sclerosed lung to a depth of 2 to 3 cm. (about one inch) at two distinct points. Only a little air and mucus

escaped. The wound was packed with gauze. The patient showed immediate signs of improvement, and within two months entirely recovered from the pulmonary trouble.

In the drainage of pulmonary lesions tubes should be used with circumspection; if allowed to remain long hemorrhage from ulceration of the blood-vessels may result, as illustrated in the cases reported by Walsham, Grainger Stewart, and Sutherland. Gauze, with or without a tube, is certainly to be preferred. Cases proving the great dangers resulting from irrigation in pulmonary surgery are quite numerous, and we firmly believe the same verdict holds equally good in surgery of the pleura.

**SOME MANIFESTATIONS OF SYPHILIS IN THE UPPER RESPIRATORY TRACT, WITH REPORT OF A CASE OF CHANCRE OF THE NASAL SEPTUM.<sup>1</sup>**

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It is a most important fact to be borne in mind by every physician and surgeon that in the nose and throat are constantly found all the different lesions of syphilis, and at all periods of life, from the snuffling infant, with hereditary taint, to the external and internal deformities of the advanced disease. As eminent a physician as Professor Osler of Baltimore only recently made the significant statement before the New York Academy of Medicine that he had said to his students: "the only disease one must know thoroughly is syphilis; if one knew syphilis, one knew internal medicine."

While the usual genital lesion may attract but passing attention, and the characteristic cutaneous manifestations entirely escape detection, the comparatively insignificant nose or throat affection for which the patient seeks relief may be the first intimation of the true condition. This outlines an occurrence which is by no means infrequent; indeed, it is so common that my own experience in dispensary work has led me to determine the presence or absence of specific disease as almost the first step in diagnosis.

The diagnosis of syphilis in the nose is comparatively easy. The "snuffles" of the infant with inherited disease is quite characteristic, but by no means pathognomonic. Not all infants presenting this symptom are syphilitic, especially after the earlier months. Careful examination in this class of

cases may disclose the presence of a foreign body or a diphtheritic membrane in the nasal chambers.

During last summer I observed a child at the Manhattan Eye and Ear Infirmary (Dr. Knight's clinic) who had snuffles. There was a brown sanious discharge from both nostrils, and a significant exco-riation of the upper lip beneath the right meatus. Relief for this condition, which the mother called "chronic catarrh," had been sought in vain at various hospitals and dispensaries. A foreign body was found in the right nostril, which on removal proved to be a long piece of stout linen cord that had been introduced into the nose six months before. Complete relief promptly followed removal of the foreign body. It was evident from the history that the anti-syphilitic treatment by inunction had been experimentally tried. On the following day another child was observed, who, to all outward appearances, presented the same condition and symptoms; and yet examination showed the presence of a diphtheritic membrane on the septum and inferior turbinate bone of the side most affected, and the Health Department reported that the case was one of true diphtheria.

Primary syphilis of the nose is not a very rare condition. Up to 1894 thirty-seven cases had been recorded, constituting between three and four per cent. of all cases of extragenital infection. In such cases the virus is undoubtedly introduced by means of the finger, and the chancre is nearly always situated on the septum, occasionally on the turbinate, and just within the nasal orifice. Characteristic mucous plaques are also found in the nose, though they rarely appear on the septum. When a secondary syphilis is observed, without evidence of initial lesion, but with a history of persistent obstructive rhinitis, one ought always to think of the nose as a possible seat of primary infection. Through the courtesy of Dr. C. H. Knight I am able to give the history of the following case, which was observed in his clinic at the New York Post-Graduate Hospital.

Marie W., German, aged thirty years, the mother of two healthy children, and whose husband, as far as she knew, was also healthy, had always been well up to three months before presenting herself for treatment. At this time she began to suffer from persistent stenosis of the left nostril, with pain and occasional slight bleeding. The affection had continued in spite of all sorts of local treatment.

Examination revealed a shelving echondrosis of the septum, a characteristic punched-out ulceration, with well-defined border—rounded and elevated, and a dirty, yellowish base. Marked hypertrophy of the inferior turbinate occluded the nostril. On lips, gums, soft palate, and right faucial pillar, were characteristic mucous patches. The usual adenitis was present, the submaxillary gland on the affected side being especially prominent and painful.

<sup>1</sup> Read at a meeting of the Harvard Medical Society of New York, December 18, 1897.



The patient had noticed great loss of hair during the previous two weeks. The case was diagnosed by Dr. Knight as one of chancre of the septum. Under specific treatment continued ten days the ulceration promptly healed, with marked improvement in the general and local conditions.

Between secondary and tertiary manifestations in the nose Dr. Hajek of Vienna recognizes certain difficulties of classification. He claims that an early periosteitis and chondritis resulting in quick destruction of bone may sometimes occur, and that infiltrative gummatous syphilis may be observed as early as the sixth month of the disease. Erythema of the mucous membrane is the usual nasal accompaniment of secondary syphilis.

Tertiary syphilis of the nose, according to the usual classification, is observed only too often. The early treatment in these cases is always an interesting question, and one in which it is difficult to determine facts. My own impression is that with an early diagnosis and proper treatment, continued over a sufficient length of time, there should be practically no tertiary manifestations. When such occur they appear in the form of gummatous tumors or as a necrotic process most frequently involving the bony and cartilaginous septum, at first continuing quietly beneath the intact mucous membrane and later breaking down with great proliferation of granulation tissue. Finally, the process becomes purulent and the sequestri find their way out or remain until removed by a surgical procedure. Ultimately there is left a general nasal atrophy, accompanied by various external and internal deformities.

The diagnosis of nasal syphilis should be made from the history of the patient, the microscopic character of the new tissue, and from the result of specific treatment.

I have now under observation a woman who presented herself for treatment on account of nasal stenosis. A granular tumor growing from the septum had completely occluded both nostrils. There was no history or evidence of infection or dyscrasia of any sort. The pathologist reported that the specimen presented all the features of syphilitic granuloma. The growth is at present disappearing under the administration of syrup of hydriodic acid.

The history, gross and microscopic appearances of new growths in this region may be so misleading that general surgical measures should be resorted to only after great care and deliberation. A pathologist's "small, round-cell sarcoma" recurring after complete extirpation through the superior maxilla at the hands of the general surgeon, and melting away again under generous doses of potassium iodid is by no means an impossible occurrence.

The nasopharynx of young subjects not infrequently furnishes evidence of hereditary syphilis, taking on the form of obstruction and stenosis due to contraction of the soft parts from the presence of cicatricial tissue. Of primary syphilis in this region—the nasopharynx, the less said the better. Doubtless all have heard of that famous Eustachian catheter in Paris, which some years ago was discovered by Fournier, but not before it had contributed forty such cases to the literature.

Primary lesions of the lips and tongue are no longer rare. "Cold sores" and "canker sores" which resist the usual remedies should be regarded with suspicion. In the oropharynx is presented a field of great importance in the general physical examination of all patients. Careful inspection here will often show the presence of certain small stellate cicatrices in the mucous membrane which prove veritable X-rays in revealing an all important truth through the dense opacity of conflicting history and symptoms. Primary lesions in this region are not rare, and the danger of infection here is shown by a case reported by Julian, in which a girl of seventeen years had both tonsils infected from the nipples of a recently delivered woman who had received the disease from her husband. Arlau of Padua has reported a very interesting case of persistent angina of the left tonsil in a woman, thirty years of age, the mother of two healthy children, and of exceptionally good history. He finally excised the tonsil, which had broken down, and the operation disclosed the presence of a chancre in the depths of the tonsil. In such cases the tonsil becomes much indurated, and the neighboring glands, especially those on the affected side, become unusually large, dense, and tender.

The occurrence of secondary pharyngitis, usually means that the general disease has continued from six weeks to three or four months. I have often been surprised, however, to observe, a pharyngitis, presenting the usual secondary characteristics, yield to specific treatment when the history extended over a period of years. Here, also, no hard and fast lines can be drawn clinically between the different stages, and this should always be borne in mind in the determination of a proper method of treatment. As a rule, when there is found in the pharynx an excessive hyperemia, with an evenly distributed edematous swelling over the palate and fauces, and presenting a sharp line of demarcation, the presence of syphilis should be suspected. These appearances may, however, occur in other diseases, and the order of the secondary manifestations may also change. In a case in which syphilitic infection was doubtful, and in which I very carefully ob-

served the symptoms, rapid disappearance of both tonsils by ulceration and without pain was the earliest secondary sign observed.

Tertiary manifestations occur in this location as gummata of the hard and soft parts, most frequently observed in a process of ulceration. They usually respond promptly to local and general treatment.

In the larynx the various manifestations of syphilis, simple catarrh, diffuse infiltrations, gumma, ulceration, cicatrices, with fibrous adhesions, parichondritis, and paralysis all present certain characteristics which, together with the history, general examination, and results of treatment, make the diagnosis reasonably certain; under certain conditions, however, differentiation may be a problem presenting serious difficulty. In this connection a case reported by Dr. C. H. Knight<sup>1</sup> shows an interesting complication:

The patient, a young student, presented typical signs of tuberculous laryngitis, and the diagnosis was confirmed by the presence of tubercle bacilli in the sputum. The patient went to California where he at first improved but soon become worse. A suspicious ulceration developed in the pharynx, and under mixed treatment there was prompt and permanent improvement in the local as well as in the general condition.

With regard to treatment it would seem that all authorities are agreed upon mercury and iodine as the two great remedies, though they are doubtful as to the advisability of using these drugs as reactionary agents, fearing the existence or non-existence of syphilis. The relation between early treatment and tertiary manifestations is another subject receiving serious attention and study by the great syphilographers of the day. In this connection, the difficulty of obtaining reliable data is obvious, and it will only be by means of the collective experience of many observers, covering a long period of time that such data will be obtainable.

Finally, in the physical examination of a patient about to receive mercurial treatment, an exact knowledge of the condition of the kidneys may be of vital importance; for next to the intestines these organs are chiefly concerned in the elimination of mercury. Brouardel of Paris reports an interesting case in this connection, in which a woman, after taking the first mercurial pill was seized with stomatitis and alarming uremic symptoms. On examination the kidneys were found to be diseased, in consequence of which the drug was not properly eliminated.

It seems possible that an examination of the urine at the beginning of treatment, and at frequent intervals during the course of the disease, might reduce the number of cases reported as "syphilitic nephritis."

<sup>1</sup> MEDICAL NEWS, June 5, 1897.

## CLINICAL MEMORANDA.

### REPORT OF THREE CASES OF ADIPOSIS DOLOROSA.

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BUT a few cases of this disease, described and named by Dercum, have been reported, and it may be well to record three which the author has had the privilege of studying, even though nothing definite can be said concerning the pathology of the affection. Two of these cases have been studied with Dr. Dercum, and their histories have been obtained from him; the third was a patient of Dr. Mills. The writer is indebted to these gentlemen for the reports of the cases. Repeated opportunity for observation of Dercum's first case of adiposis dolorosa has also been given. All three patients, whose clinical histories are herewith published, are women, and at present, at least, the disease seems to be more common in the female sex.

FIG. 1.



Cross section of muscle from a case of adiposis dolorosa showing no appreciable change from the normal, except, perhaps, a slight enlargement of the nuclei.

**CASE I.**—Miss A. B., aged twenty-nine years, was referred by Dr. Rudolph Matas of New Orleans to Dr. Dercum. The family history was negative. Her father and three brothers were living and well. Her mother died in confinement. She had the various diseases of childhood, but never any nervous affection, and was well in early youth. The history of the present trouble was obtained from the patient herself, and is as follows:

About seven years ago, while walking along the street, she felt a sharp, sudden pain in the arch of the right foot. It was of a neuralgic nature and prevented her, for a few moments, from walking to a car. It continued for an hour or so and then disappeared for some days; but from that time on she was subject to more or less severe attacks of pain in the right foot. After a year or two, she consulted a physician who pronounced the disease rheu-

matism, and prescribed salicylic acid. Four years ago she noticed that her right lower limb was swollen at the ankle and also just above the knee. Finally, as she was not getting better, and observing that the entire extremity was growing noticeably larger, she went to another physician who also pronounced it "rheumatism of a neuralgic order" and prescribed salicylic acid. He directed her to bind her entire limb in a surgical bandage from the hip to the toes, to reduce the swelling. This she wore for about four weeks, but without satisfactory result.

At this time the pains in the leg were quite as severe as that in the foot, and they began to materially interfere with walking. Standing or walking markedly increased the pain. While in Canada last September she took a severe cold, and for two weeks could neither walk nor raise her right arm, as the pain also affected the right shoulder. Electricity, baths, massage, and a visit to Hot Springs all failed to make an impression upon the disease. Tingling sensations, at one time present in the toes of the right foot, disappeared, but in other respects the affection became more pronounced, the swellings increasing in size and number until the right limb was much larger than the left. In a letter from Dr. Matas the statement is made that at his first examination the pain was distinctly marked along the paths of the external cutaneous, anterior crural, and musculocutaneous nerves.

The clothing having been removed and the patient placed upon her back the right thigh was at once observed to be decidedly larger than the left. The left thigh and leg were full and well formed. The trunk, shoulders, and arms were also well rounded, but did not give the impression of obesity. In other words, the left leg, trunk, both shoulders, and arms were well formed and well proportioned. On palpating the right foot a small spot, exquisitely sensitive to pressure, was discovered immediately over the distal third of the instep, extending slightly over the first metatarsal bone and first interosseous space. It was not accompanied by any swelling. Behind the external malleolus another small area of tenderness was discovered, and here, in addition, a soft fatty swelling was observed. The circumference of the ankles, the tape lying over both malleoli, was a quarter of an inch greater in the right than in the left foot. By measurement the right leg was also found to be somewhat enlarged. Thus, at the junction of the upper and middle thirds, the right leg measured  $13\frac{3}{4}$  and the left  $12\frac{1}{4}$  inches. The enlargement appeared to be diffuse and uniform; no nodules, defined masses, or painful areas were detected. The enlargement of the thigh was very striking and readily confirmed by measurement. At the junction of the lower and middle third the right thigh measured  $19\frac{3}{4}$  and the left  $17\frac{3}{4}$  inches. At the junction of the middle and upper thirds, the right thigh measured  $22\frac{1}{4}$  and the left  $22\frac{1}{4}$  inches. The middle third of the right thigh measured  $21\frac{1}{2}$  and the left  $19\frac{3}{4}$  inches. The enlargement of the thigh was found on palpation to be unevenly distributed. Immediately over and above the internal condyle, for example, an area was found at which the enlargement was more pronounced, and which felt nodular or lumpy. At this situation great pain was

elicited by pressure. Upon the outer aspect of the lower third, several small, nodular, painful masses were also detected. In addition several painful areas were found in the course of the external, middle, and internal cutaneous nerves.

Some enlargement was present above the thigh, that is, over the lumbar and also to some extent over the right gluteal region. The enlargement had taken place, as far as could be judged, only in the fatty tissue. Over the right iliac crest, and to some extent posteriorly, a striking enlargement about the size and shape of a large orange was noted. This mass presented the same nodular (worm-like) feel noted in other situations. It was exquisitely painful, and not sharply circumscribed, but shaded off into the adjacent fatty tissue. The soreness was so great as to prevent the patient from lying upon her back or upon the right side. The entire lateral aspect of the right buttock was very sensitive to pressure, the pain interfering with the patient's sitting in a chair. A soft, more or less circumscribed mass was found in the right popliteal space. No nodules were discovered in any other portion of the body save on the inner aspect of the left arm, where a small mass, the size of a large nut, was detected.

The patient was a well-nourished young woman with a rather good color. There was no history of hemorrhage from mucous surfaces, or of cough or dyspnea. There was no headache. Backache, however, has been present at various times. Menstruation was normal.

The patient stated that the pain was never absent in the fatty masses, and that they were always more or less tender. At times, however, great exacerbation of the pain occur. In other words, the pain was subject to paroxysmal exacerbation, and she had repeatedly observed during these periods that the various nodular swellings above described had a firmer and somewhat indurated feel and were distinctly increased in size. After the paroxysm of pain subsided the intensity of the swelling somewhat diminished, but it never entirely disappeared. She further stated that each attack of pain seemed to add permanently, though slightly, to the size of the swellings. It was evident, from the examination, that the swellings were in the fatty tissue. There was no involvement of the muscles or bones.

CASE II.—M. A., an unmarried woman, aged sixty-five years, born in Ireland, was admitted to the service of Dr. Dercum at the Philadelphia Hospital, November 25, 1896. She was a very stout woman, and complained of pain in her feet. Her mother died of dropsy at the age of fifty years; her father was drowned. Three brothers and three sisters died in infancy. One sister grew very stout after the menopause, and finally died of asthma.

The patient had always been very healthy. She denied alcoholism. Menstruation ceased at forty. She had formerly been thin, but began to grow gradually stout at about the age of forty. She worked in a laundry during twelve years, and at the end of this period began to have pain. The pain was first felt beneath the heels, especially on walking. This pain extended to the legs, and seemed to be in both flesh and joints, later in-



volved the hips and right shoulder. Two years ago (1894) she noticed pain in the fatty tissue of the limbs and trunk. She had never vomited blood nor had hemorrhages; she had not had headache or vertigo. The pain in the fatty tissue was subject to paroxysmal exacerbations. She stated that she had grown much stouter since the pains began.

Tenderness and pain were elicited by pressure, and upon handling the fatty tissue of the arms, thighs, legs, buttocks, lumbar region, and back. Slight soreness was also detected over the abdomen, the right shoulder, and the right arm, both inner and outer aspects, and local weakness was also observed. The pain did not follow any nerve distribution, and there was no anesthesia. The response to tests for heat and cold was prompt and correct. The patellar reflexes were normal. The tongue was protruded in a straight line. The pupils were equal and normal. The patient complained of headache and pain during motion of the left hip-joint, the latter having continued three years. She had also a marked flush over the forehead. The obesity was very marked over the thighs, calves, abdomen, nates, and back. It was also very great in the arms, less marked in the forearms, and absent in the feet and hands. In the face there was no special deposit of fat and no pain. The same condition was present in the neck. The isthmus of the thyroid was exceedingly small. The presence of lumps was not noted in this case, as in Case I.

CASE III.—Mrs. A., aged forty-five, referred to Dr. Mills by Dr. Thomas Hay of Milwaukee. The patient stated that there was no history of a trouble similar to hers in her parents or in their families. Her mother had had rheumatism which caused a very different kind of pain. A daughter of the patient's was in delicate health, but did not have a similar disease, and her three children were healthy.

The patient had been corpulent twelve or fourteen years, and first began to gain fat when she was about thirty-five years old, after the birth of her last child. She weighed 116 pounds at the time of her marriage, and during the four years previous to coming under observation weighed about 192 pounds. After an attack of pain she was always more fleshy and could not wear her clothes. The pains began about four years ago, at a time when she was rapidly gaining fat. The history of the commencement of these pains is as follows:

The legs from the knees to the feet began to ache, especially at night, and she could not sleep. After three or four weeks she had a sensation as of worms creeping in the flesh below the knee, and this made her exceedingly nervous. She also had a sensation of a tight band wound about the right lower limb from the lower part of the thigh to the foot. The calves of the legs felt as if they would burst open.

These symptoms continued for several months until she had an attack of very severe pain with a sensation of burning in both lower limbs, attended by a difference in the degree of temperature on the outside and inside of the thighs, as tested by her own hand. About three months later the pains were felt in the right arm, and some months later in the left.

During the first attack she noticed small pea-like swellings beneath the skin of the thighs, legs, and feet, but not in the arms. She had had severe attacks of pain, attended by painful swellings, at irregular intervals, but had been free from them as long as two years at a time. About four years ago nodular swellings were noticed on both sides of each knee, but were more marked on the right limb. These gradually grew smaller. At one time she had a large lump in the left inguinal region, which increased in size and was more painful at her monthly periods. This subsequently disappeared. She had also, at one time, a painful swelling over the back of the left hand.

Massage benefited her greatly, and under treatment with thyroid extract she improved so much that she became much thinner, and last summer could walk a block and a half. Her headache, from which she suffered greatly four years ago, is at present much less severe.

This patient had never had pain in the face. Often during her attacks of pain the palms of the hands and the soles and sides of the feet were covered with blisters, and after the attacks were over the skin peeled "as in scarlet fever."

On examination the patient was found to be corpulent, but not nearly as heavy as the patient first described by Dercum. A small lump was found on the outer side of the right knee. She complained of much pain in the lower limbs and to a less extent in the upper. This pain was spontaneous and was increased by pressure, and did not follow the course of any nerve. The hands and feet were somewhat puffy, but did not pit on pressure. The face was not affected and was not tender to pressure, except above the eyes. The patellar reflex was obtained in the left leg, but not in the right, even by reinforcement. There was no ankle clonus. Sensation for pain and touch was everywhere normal. There was no limitation of the visual fields, as tested with the hands. Except over the coccyx there were no painful points along the spine. There was no inguinal tenderness (ovarian), but there was slight inflammatory tenderness on the right side, and still more tenderness on the left. The limbs were everywhere tender to touch, and the back and front of the trunk were also tender, but not to such a degree as the limbs.

#### **A CASE OF INGUINAL HERNIA OF LARGE SIZE; CURE FOLLOWING AN UNUSUAL METHOD OF OPERATION.**

BY A. ERNEST GALLANT, M.D.,

OF NEW YORK;

ASSISTANT, DEPARTMENT OF SURGERY, IN THE NEW YORK  
POLYCLINIC.

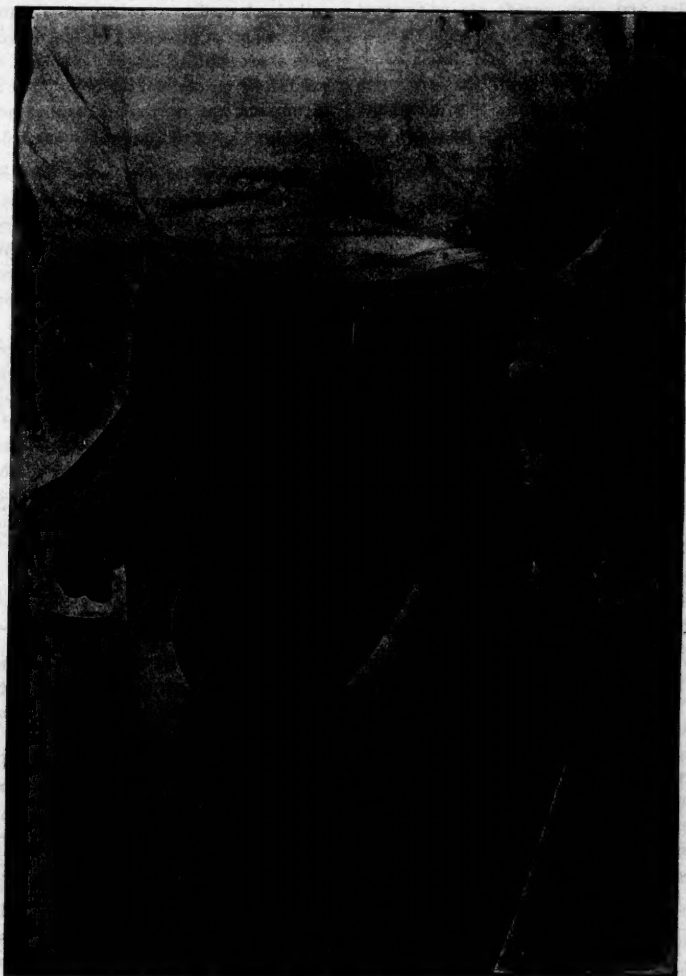
DURING April, 1895, Mrs. M. N., aged sixty-two years, was referred by Professor Van Arsdale from the Good Samaritan Dispensary to the Lebanon Hospital. Her history was as follows:

Twenty-six years ago, while at work, she felt a snap, and something seemed to give way in the left groin, following which a small mass made its appearance in the region referred to. With the birth of each of her four

children the mass increased in size. During recent years she has had three attacks of so-called "strangulation," the last two occurring two months before admission to the hospital. Bandages and supports of various kinds had been tried, and failed to afford any relief. She finally became practically bedridden, and, fearing another period of complete obstipation, was willing to submit to any procedure offering a chance of relief.

The operation was performed May 22, 1895, an incision six inches long being made over the anterior part of the tumor. Later, the opening was enlarged upward and outward toward the anterior spine of the ileum in order to facilitate reduction and suturing. The thin-walled sac contained the greater portion of the transverse and descending colon and nearly all of the small intestine. A portion of the small intestine fifteen inches long was ad-

FIG. 1.



Inguinal hernia in a woman.

The condition previous to operation is well shown by the accompanying illustration (Fig. 1). Through the thickened inguinal ring the patient could reduce the mass to about one-half its usual size. She was examined by the members of the visiting staff of Lebanon Hospital, and all agreed that, in view of the liability to obstruction or strangulation, operative interference was justified, as likely to afford relief for a time at least, though cure could hardly be expected.

herent to the most pendulous portion of the sac, and was released with difficulty. The abdominal cavity, being relieved for so long a period of such a large portion of its contents, had contracted to such an extent that reduction was very difficult, and, when finally accomplished, made the abdominal walls as tense as a drum. While the intestines were being replaced, Dr. Parker Syms cut off the sac close to the groin, leaving only sufficient tissue to cover the wound.

Owing to the weakness of the patient's pulse, no attempt was made to cover the raw surface which remained after the separation of the adhesions. Anticipating very great abdominal tension it occurred to me that the following method of introducing the sutures could be more quickly applied, and perhaps more likely to hold than the usual method of uniting corresponding structures. Kangaroo tendon was employed for the buried sutures. The sutures were passed through the upper border of the wound, including the peritoneum, transversalis and external oblique muscles, and then, *inside the abdominal cavity*, through the peritoneum just above Poupart's ligament. The external oblique muscle and fascia were stitched edge to edge, *en masse*, to all the structures which compose Poupart's ligament. By this means the second tier of sutures overlapped the first by about one inch. The skin wound, twelve inches long, was sutured with silkworm gut.

On the afternoon of the second day after the operation the patient presented a marked degree of tympanites. Twelve doses of epsom salt, 1 dram each, were given. This was followed during the night by enemata of soap-suds, and later by a high injection of turpentine and sweet oil, but without affording any relief. At this time Dr. Syms telephoned that the patient was suffering from intestinal obstruction, and instructed me to operate for the relief of that condition. The abdomen was extremely distended, and the patient in great pain and fearing death.

After the removal of the dressing light friction was applied to the abdomen with the palm of the hand, beginning at the right iliac fossa, passing along the course of the colon to the opposite side, down to the region of the sigmoid over the pubes. This maneuver was slowly and constantly repeated, and, after a few moments, the abdomen became less tense and the pain subsided. With the closed fist greater pressure was now exerted, and within fifteen minutes considerable gas was passed from the rectum. The patient expressed her appreciation of the relief afforded by kissing the hand of the masseur, shortly after which she went to sleep. During the day the bowels moved four times. No further difficulty was experienced. Healing of the wound took place by primary intention. The highest temperature reached at any time was 99.6° F.; pulse, 88. During the period of abdominal distention the respirations reached 52 per minute. Since leaving the hospital the patient has been able to attend to all her domestic duties, washing, ironing, scrubbing, etc.

During March, 1897, the patient changed her residence, and since then I have been unable to locate her, but at that time, twenty-one months after operation, she was in excellent condition.

This patient may be regarded as cured, and the writer feels that the good result was due to (1) the method of introducing the sutures, and (2) to the prompt relief of the intestinal distention by means of friction, a procedure which has proven useful in many cases.

**A Victim to the Plague.**—Madame Florence Morgan, the superintendent of the Plague Hospital at Bombay, recently died at that place of bubonic plague.

## MEDICAL PROGRESS.

**Tuberculous Ulcer of the Inner Surface of the Cheek.**—CARRIERE (*Monats. f. Pract. Dermat.*, vol. XXVI., No. 1) describes the beginning of tuberculosis in a patient, aged thirty-seven years, who came to him for treatment of a slight abrasion on the inner surface of the left angle of the mouth. In the course of a few days this healed, leaving a somewhat elevated scar. Soon after, in this scar, an ulceration appeared and extended gradually backward 2.5 inches parallel to the margin of the teeth, where it presented the appearance of a raised lesion with sharp whitish edges. It was not painful, but was exquisitely tender if disturbed. The surrounding mucous membrane was normal in appearance. Tubercle bacilli were found to exist in the margin of the ulcer.

**Amputation of the Leg below the Line of Demarcation.**—ALLEN (*Med. Record*, December 25, 1897) describes a case of typhoid fever followed by gangrene of the left leg, apparently due to thrombosis. Owing to the very weak condition of the patient, amputation under an anesthetic was rejected as likely to prove fatal, and poultices were applied. As soon as demarcation was established, the patient was given a small dose of chloral, and without her knowledge the leg was amputated through the gangrenous tissue. Six months later, the flaps were split up, the bones divided at a higher plane and their ends covered. Union was this time primary, and the patient entirely recovered. This rather tedious method of procedure, in Allen's opinion, saved a patient who under any other plan of treatment would have succumbed.

## THERAPEUTIC NOTES.

**Antiseptic Treatment of Acute Otitis Media.**—CHEATLE (*Pediatrics*, January, 1898) urges the importance of antiseptic treatment of the external meatus in cases of middle-ear trouble. The cartilaginous portion of the meatus teems with micro-organisms. The writer has observed that in acute otitis media puncture of the drum membrane is frequently followed by the escape of serosanguinous fluid without pus. Even if pus is present, if possible, further infection should be prevented. The first thing to be done when consulted by such a patient is to purify the auricle and meatus. This is best performed by means of a 1-20 carbolic-acid solution. Small swabs of cotton are dipped in this, and with them the meatus is thoroughly scrubbed. The ear is also douched with a 1-40 carbolic-acid solution. When the meatus has been thus purified, a light plug is introduced into it, and a dressing and bandage applied. If it subsequently becomes necessary to puncture the membrane this may readily be accomplished without infection, and even if this does not become necessary, the dressing gives the ear functional rest, a point the value of which is not sufficiently appreciated. Carbolic acid is a particularly good disinfectant in these cases on account of its anesthetic property, and its power of penetration into fats. Patients with middle-ear disease, if treated in accordance with these principles, do very well indeed.



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No. 111 FIFTH AVENUE (corner of 18th St.), NEW YORK.

*Subscription Price, including postage in U. S. and Canada.*

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LEA BROTHERS & CO.,  
No. 111 FIFTH AVENUE (corner of 18th St.), NEW YORK,  
AND NOS. 706, 708 & 710 SANSON ST., PHILADELPHIA.

SATURDAY, FEBRUARY 26, 1898.

## DOES PUBLICITY INCREASE CRIME?

WHEN the medical student reaches cardiac diseases in the course of his studies he frequently discovers that he has a systolic murmur or some other alarming symptom of heart disease. This fact is so well known that it has passed into that most ancient of all storehouses from which the college professor draws his jokes. Is this harmless form of "suggestion" a true index of the effect on the public of a constant presentation to their minds of the details of crime? Do the sensational reports of murders, of rape, of arson, incite other men and women to like deeds? Is crime infectious and contagious?

Warren, in discussing this subject in the January number of the *University Medical Magazine*, asserts that newspapers propagate crime in three ways: (1) by suggestion, (2) by creating an insane desire for newspaper notoriety, and (3) by placing a premium on crime. The newspaper stands in about the same relation to the public, according to this writer, as a hypnotist does to his subject; and while there is some doubt whether a hypnotist can by suggestion induce a person to commit crime unless he already has a leaning in that direction, still there are too many individuals who are willing to be persuaded into wrong-

doing, especially if they hope to profit by it, to make that excuse of much avail.

As for the effect on the would-be criminal of seeing his name and photograph in the "Extra" of a penny print, there is much direct testimony that boys and others, who have committed some horrible crime such as train-wrecking, were impelled to it by the love of notoriety. Imagine yourself a criminal, considering the chances of being caught if you carry out a certain daring burglary. What would be the relative deterrent effect upon you of the methods of trial and publicity in this country, and, for instance, in Germany? The conditions here do not require description. On the other hand, in Germany, the prisoner drops out of existence, one may almost say, until the result of a secret trial has either released him or separated him still further from all contact with his fellows. It cannot be denied too, that in Germany the scarcity of mercy would have a still further deterrent effect upon intending criminals; but the difference in this respect in our own country is, in no small degree, the result of the habit we have grown into of looking upon a criminal trial as a contest, and if the criminal makes a plucky fight, or if the odds are heavily against him, the love of bravery and fair play, makes both jury and public unwilling to decide against him, irrespective of the crime which has brought him into the lists. The remedy for this state of affairs proposed by Warren, is to ask the representatives in Congress and in the Legislatures to pass laws prohibiting the publication of this class of news.

In the *Public Health Journal* for December, Humphrey of Oregon, takes up the increase of crime from a little different point of view. He too, admits the increase of crime (there were 48,834 murders and homicides in the United States in the ten years ending 1895), and laments the ineffectual means of prevention which are now employed. Impressed as he is with the fact that criminals to a great extent breed criminals, he advocates the asexualization of old offenders, as the most logical measure to protect the State from an ever-increasing number of individuals having a well-marked criminal tendency.

As to the practical outcome of such a law, he says:

"Criminals would regard such a law with terror, and would rather take their chances against anything than having their procreative organs removed. I

am aware that a great many will not agree with me, but I have the courage of my convictions and can afford to be criticized. Of all the criminals that should be so dealt with for the first offense are those who rape innocent women and girls. All other classes might be subjected to the operation of such a law on a second conviction."

The study of anthropology has proved the existence of a criminal type, with marked characteristics in anatomy and physiology. How fruitless to allow these parasites upon society to multiply, and then to spend millions in the attempt to alter these characteristics in the individuals of ever-recurring generations! And every year while the Government is performing this task of Sisyphus, thousands of good members of society are robbed and butchered by the degenerated who ought never to have been generated.

#### EXPERT MEDICAL WITNESSES.

A BILL has been introduced in the New York Legislature which aims to provide for the examination and appointment of medical expert witnesses in certain cases, and for the regulation of their compensation. The act is fostered, it is understood, by the Homeopathic State Medical Society.

The essential features of the bill are: That upon the trial of all indictments for felonies in a court of criminal jurisdiction, whenever it is made to appear to the Court that the trial will probably require the introduction of medical testimony, the Court may, upon application of either party, appoint such a number of experts—not less than three or more than five—as the Court shall deem proper. The presiding judge shall provisionally prepare a list of names of such persons as it may have reason to believe properly qualified, and shall cause any of these persons to be subpoenaed to appear at such time and place as the judge may order. They shall then be examined by the latter, touching their qualifications to serve as experts, and if they pass a satisfactory examination they may be employed; if they do not, they are at liberty to return to the duties of their profession, with which they believe themselves competent to cope and which the licensing faculty has deemed them fitted to perform.

If the individual who has been preemptorily summoned from his chosen labor satisfies the presiding judge that he has sufficient "expertness," he

is to be paid from \$10 to \$100 a day for his services, depending upon the value which the all-wise Solon who then happens to wear the ermine puts upon his services. He is also allowed mileage, the same as other witnesses. As the bill provides that experts may be summoned from without the State, it may be well for experts living or sojourning in the Occident to enlarge their strong boxes and make plans now for the repletion of their exchequers. The only other feature of the bill which calls for remark is, that nothing in the act shall be construed to limit or effect the right of either party to summon other expert witnesses—as many as they may be able to induce to give testimony on a contingency, or a cash basis.

No one will deny the opportunities of the time, nor the necessity of reform in the present method, or want of method, of employing medical expert testimony. There has already been much useful discussion on this topic, and it is not improbable that in time a plan will be evolved which will be a great advance on that in vogue at the present day. We regret, however, to say that the bill in question does not contain a germ of laudable or legitimate reformation, and we hope sincerely that every physician who is interested in this matter and every society to whose Committee on Codes it will be referred, will do all in their power to prevent its enactment.

The first, if not the most serious, objection raised to the act is, that it leaves the power of appointment of experts in the hands of the presiding judge. This individual may be deeply learned in the law; he may be profoundly versed in the humanities; he may be an honest, upright, judicial personage; but wherefore should he know of the weary delving into the realms of science, and of the years of studious labor on the part of physicians, whom he does not know either by word or reputation, which give them the right to be called "expert" by their professional brethren? As a matter of truth, he does not know, nor in all human probability has he any ambition to extend his knowledge in this direction. One of the speakers discussing this subject at the meeting of the State Society a few weeks ago in Albany, said that it was notorious that judges selected their physicians from the ranks of the homeopaths or the quacks, and it was the exception for a

judge to have in his service a reputable, distinguished physician. If they cannot be relied upon to show greater wisdom in the selection of their family physicians why should they be expected to be more perspicacious and discriminative in behalf of the public?

A second objection to the bill, and one that more closely concerns the physician, is that no law that compels him to relinquish whatsoever he may be engrossed in, even though it be of the gravest import, and dance attendance upon a court which shall examine him as to his fitness to testify on a matter which may not be of the slightest interest to him, can be enforced. The "expert" may be called upon to give testimony that spares a human life, or to testify to facts that will keep in the hands of legitimate legatees millions of dollars, and for this service he is given \$15, or \$40, or even, if Magnanimity is sitting on the bench, \$100. For this paltry sum he has burned the fires of his soul and pigmented his cortical cells, that a judge may rise up and call him expert. No wonder that the legal faculty look upon the doctor as an easy prey, when there are those amongst us who assume the rôle of reformers and put the value of a journeyman plumber's wages upon their services. Imagine employing Daniel Webster, Henry Clay, and Rufus Choate, in their day, or in ours, for from \$10 to \$100 a day. Shades and spirits of these immortals gather around and protect us! Yet this bill proposes to call, at any time or place, the leaders of the medical profession, the authorities of the day, and, after using them to their advantage, requite their services with a contemptible sum which not even the most inconsequential lawyer would deign to accept as a retainer.

And lastly, when the whole matter is simmered down, of what earthly benefit would the enactment of such a law be? It states specifically that either party may call as many experts as he sees fit. Modern Croesus, accused of crime, may summon the flower and fruit of the medical faculty, and so bewilder his twelve peers sitting in judgment upon him that the trial would be an exact counterpart of those of to-day. On the other hand, an impetuous, miserable wretch, on trial for murder, might with her nescient wail, touch the sympathetic cord of a hysteric sisterhood, who, under the guidance of crafty counsel, would erect a psychic

superstructure of fantastic epilepsy that, through the mediumship of outside experts, would sweep her from the electric chair.

If we are to have reform in the matter of expert medical testimony, let us have reform based upon sound reasoning and legitimate principles of equity and honesty.

#### MEDICAL POLITICS AT MOBILE.

WE had not given any credence to charges made in certain papers that the quarantine convention intended to be composed of delegates from the South Atlantic and Gulf States, which met in Mobile on February 9th, 10th, and 11th, was, as specifically charged by them, a "packed" convention conceived by persons inimical to a national quarantine, and incidentally opposed to the development of the Marine Hospital Service. The fair appearance of the call, the equitable division of representation among the Southern States, and the high character of some of the gentlemen named as its leading spirits, seemed to forbid such a conclusion; but the reports which we have at hand from this meeting indicate that the elaborate program laid out by its astute managers to discuss the varied features of maritime and interstate quarantine and sanitation in general was nothing more or less than a Barmecide feast.

The ingenuous gentleman who went to the convention under the impression that he would hear scientific papers and discussions on the diagnosis of yellow fever, the sanitation of cars, baggage, and freight in times of epidemic, the disinfection of houses and other similar topics of vital interest, soon found that while the politics of the managers of the convention necessitated this masquerade to attract attendance, the real interest of its promoters was to secure an endorsement of the so-called American Medical Association bill to establish a Department of Public Health, and to denounce the Caffery bill which has been drawn in the interest of Federal quarantine. We learn that the Executive Committee, a self-appointed body, selected a permanent Chairman for the convention without giving the members the privilege of voting on the presiding officer, and that this same Chairman thereupon named a Committee on Resolutions, who were to formulate the sentiments of the convention upon the all-important point of national or State supremacy in quarantine matters.



Although this convention was to be composed of delegates from the South Atlantic and Gulf States, it was soon discovered that Illinois was represented by the editor of the *Journal of the American Medical Association*, and Wisconsin by the Chairman of the Committee of the American Medical Association, by which was formulated the bill designed to obliterate the Marine Hospital Service in national health matters. Delegates were also present from New York, Maryland, and Kentucky, and these gentlemen and the delegates from these three States were accorded equal privileges on the floor, and were appointed members of the Committee on Resolutions, a body of thirteen members, of which these constituted almost one-half. The rest was easy, and although the managers did not secure an endorsement of their bill, neither did it secure a denunciation of the Caffery bill, as there was a large minority, who, in their disappointment at the outcome of the convention, did not propose to be led further into a game which had become manifest at the close of the third day. One day of scientific discussion and two days of wire-pulling had opened their eyes to the meaning of the convention. What the convention resolved,—a sort of endorsement of national quarantine, with a reference to the reserved rights of States,—is highly unimportant even if it was unanimously passed. In fact, the New Orleans *Times-Democrat*, in its issue of February 12th, says editorially “unless Congress can do better for the South Atlantic and Gulf States than the convention proposes that it shall do,” referring to these resolutions, “their liability to invasions of foreign disease will not be materially lessened.”

## ECHOES AND NEWS.

**Monument to Tarnier.**—The former pupils of the late Professor Tarnier have formed a committee to secure funds for the erection of a monument to his memory.

**An Enormous Heart.**—At an autopsy recently held in London (Eng.) to determine the cause of death in the case of a man, forty-six years of age, who had suddenly expired in an omnibus, it was discovered that his heart weighed forty-three ounces.

**Another Achievement in Abdominal Surgery.**—Mr. Frederick Treves, the English surgeon, recently removed the whole of that part of the bowel below the transverse colon, together with the anus, in a case of idiopathic dilatation of the colon in a child. The patient made a good recovery.

**Hospital Service for Alaska.**—A company known as the Alaska Sanitary Company has been organized under the laws of Illinois for the purpose of establishing a series of hospitals at all the important points in Alaska. The chief promoter of the enterprise is Dr. F. H. Booth. A two-story log structure has been erected at Dawson City as a hospital. The institution is under the charge of Father William Judge of Baltimore. It has twenty-six patients. At present the nursing is done by the miners, but six sisters of St. Anne are on their way from Montreal to act as nurses and teachers.

**A New Location for Mt. Sinai Hospital.**—A site consisting of twenty-five lots on Fifth avenue between One Hundred and One Hundred and First streets has recently been purchased by Mt. Sinai Hospital of New York, upon which a new building is to be erected in the near future.

**Sterilization by Frying.**—Olive oil at a temperature of 256° F., is recommended for sterilizing syringes and instruments. Immersion for an instant in the hot oil will completely sterilize an instrument, while to render a syringe germ free, it is only necessary to twice fill the barrel with oil at the temperature mentioned.

**Funds for the Craig Epileptic Colony.**—Among the bills recently passed by the New York Assembly is one appropriating \$161,000 for the Craig Colony of Epileptics. This experiment in the management of epileptics may now be considered an established system, and the recognition of this fact by the State legislators is thus assuring it substantial aid.

**The Middleton Goldsmith Lecture.**—The Middleton Goldsmith lecture of the New York Pathological Society was delivered at the New York Academy of Medicine on Friday evening, February 25, 1898, by Professor William T. Sedgwick of Boston. The subject was: “The Establishment and Conservation of Purity in Public Water-supplies, Especially Those of Great Cities.”

**Expectoration Tracts.**—The Women's Health Protective Associations in different parts of the country have extended their warfare against expectoration in public buildings and street-cars by the distribution of neat little cards which invite the attention of the offender against public health and cleanliness to the fact that expectoration is forbidden. These cards are already in use in Boston.

**To Abolish Coroners.**—The first county to seek to take advantage of the omission of any mention of the office of coroner in the new constitution is Ulster, and Assemblyman Tremper has introduced a bill abolishing the office in that county. The measure is now awaiting its final reading in the Assembly. If the bill passes, it is expected that a number of other counties will follow suit.

**An Instrument with a History.**—The museum of the Royal College of Surgeons of England has been enriched by a case of instruments which has a distinct historic value. The case contains a saw which bears this inscription:

tion: "The first subcutaneous osteotomy saw made by Mr. Blaise, and used by Mr. William Adams on December 1, 1869, in his first case of division of the neck of the femur."

**"Undesirable Invalid's Bill."**—According to the *Lancet*, this is the title of a bill which it is proposed to bring up for the second time before the House of Representatives of New Zealand. The bill is directed against the landing on the islands of patients afflicted with communicable diseases, and stringent measures are to be adopted with regard to those people already in the colony who are similarly afflicted. Foremost among such diseases is tuberculosis, and more particularly pulmonary tuberculosis.

**Scarlet Fever from Milk.**—Some cases of scarlatina at the Oranges, New Jersey, are reported to have been traced to a dairy conducted by a family, all the members of which have been, or are now, suffering from that disease. The dairy is at Northfield and has been taken in hand by the State Board of Health. The cows have been given a clean bill of health and are now at another farm. The nature of the attack was not understood by the family until the first patient, a person over sixty years of age, had passed into the desquamative stage.

**Female Candidates for Fellowship.**—Among the list of candidates for fellowship of the Royal College of Surgeons, Ireland, appear the names of three women who present all the qualifications prescribed by the College and recognized by the General Medical Council. In conformity with collegiate rules the applications will receive attention with a view to inquiry as to the eligibility of the applicants in other respects, and it is assumed that if no objection is then offered, they will be admitted to the examination. Whether they will achieve the fellowship is another question.

**Improved Methods of House Disinfection.**—The question of what to do with people who live in two or three rooms when a case of infectious disease necessitates closing these up for disinfecting purposes, has been solved in England. Upon the suggestion of the medical officer of health, Dr. Waldo, the vestry of St. George's, Southwark, have opened a receiving house for the reception of the temporarily homeless families. They are taken care of at the receiving house for eight hours, during which time they are given baths and their clothing is taken from them and disinfected.

**Examinations in Hygiene.**—Rutgers College is the first educational institution in this country to definitely recognize the specific qualifications of sanitarians. The college will conduct examinations and grant certificates in municipal hygiene to officers of local boards of health, sanitary inspectors, factory inspectors, plumbing inspectors, and to those who may seek appointments to these positions. The examinations, which will be held on the first Wednesday of the months of March, June, and October at the college buildings in New Brunswick, New Jersey, will be designed to test the fitness of persons who may

by called upon to engage in the execution of the health laws.

**Obituary.**—Dr. John G. Truax died at his home in New York on February 16th of Bright's disease and heart failure. Dr. Truax was born in Oneida County, New York, in 1848. From the University of Michigan he went to Rush Medical College, Chicago, and was graduated from that institution in 1871. He came to New York in 1876. He was a brother of Judge Truax of the Supreme Court.—Dr. Robert A. Wheaton recently died of apoplexy at his home in St. Paul, Minn., at the age of thirty-five. He was a graduate of Harvard, and was professor of minor surgery in the University of Minnesota, and captain and assistant surgeon in the Minnesota National Guard.—Charles Todd Quintard, D.D., LL.D., Bishop of the Protestant Episcopal Diocese of Tennessee, died last week at Meridian, Ga., of heart failure. He was born in Stamford in 1824. After leaving Trinity School he studied medicine with Dr. James R. Wood and Dr. Valentine Mott, and was graduated from the University of the City of New York in 1847. He then removed to Athens, Ga., where he began the practice of medicine. In 1851 he was appointed professor of physiology and pathologic anatomy in the medical college at Memphis, Tenn., and was co-editor with Dr. Ayres P. Merrill of the *Memphis Medical Recorder*. In 1855 he was appointed a deacon in the Protestant Episcopal Church, and in January, 1857, became rector of the Calvary Church, Memphis. After the death of Bishop Otey in 1865, he was elected Bishop of Tennessee. He received the degree of doctor of divinity from Columbia in 1866, and that of doctor of laws from Cambridge (Eng.) in 1867.

**Statement by Surgeon-General Wyman Regarding Ship Island Quarantine.**—In a letter to the *Washington Post*, in reply to one asking for information in regard to the quarantine station on Ship Island, Miss., Surgeon-General Wyman says: "There is absolutely no place for the location of a quarantine off the coast of Mississippi to which greater objections cannot be made than are made to Ship Island. If a distance of twelve miles from the coast is an insuperable objection, then the quarantine stations at San Francisco and San Diego, Cal., Galveston and Sabine Pass, Tex., Mobile, Ala., Key West and Fernandina, Fla., Brunswick and South Atlantic Quarantine, Ga., Cape Fear Quarantine, N. C., and New York Quarantine all would have to be moved, for they are all nearer to the coast or to populated districts than is Ship Island. . . . Captain Laym of the Revenue Cutter Service and Surgeon Murray of the Marine Hospital Service were directed to visit the other islands in the Gulf, and reported under date, December, 19, 1883, that Ship Island was the best located and the only island which possessed the necessary advantages for a quarantine station. Nevertheless, in 1898 various influences brought about the act of Congress authorizing the removal of the station to some other island. This act of Congress gave authority, but was not mandatory in its language. A board was appointed March 10, 1888, to select a site for a new quarantine station, and though their orders required them to recommend some other site

than Ship Island, the board went out of its way, in the fourth paragraph of its report, inserted at the suggestion of Dr. Wilkinson of Louisiana, to state as follows: 'There is no evidence to warrant the belief that the presence of the National Quarantine Station on Ship Island is a real source of danger to the inhabitants of the Gulf Coast, but all testimony points absolutely to the fact that the absence of an efficient quarantine service at that place will afford a probable inlet to contagious diseases into that vicinity.' This report was signed by Surgeon W. H. H. Hutton of the Marine Hospital Service; Captain J. H. Parker of the United States Revenue Cutter Service; Dr. J. W. Mabin of Biloxi, who represented Mississippi, and Dr. C. P. Wilkinson of the Louisiana State Board of Health. The Board reported that Chandeleur Island afforded the 'next best' location, and accordingly the station was removed there in 1889, and, all told, about \$85,000 was expended in its establishment. Immediately thereafter, the State of Mississippi established a quarantine at the abandoned site, performed active work there inspecting and disinfecting vessels, charging the customary fees therefor, and continued to do so with some intermission until 1894, when the United States establishment was replaced on Ship Island."

## CORRESPONDENCE.

### OUR PHILADELPHIA LETTER.

[From our Special Correspondent.]

PUBLIC OPINION AND THE TYPHOID EPIDEMIC—A LOW DEATH-RATE FOR 1897—METHYLENE BLUE IN THE TREATMENT OF GONORRHEA—PAPILLARY NEOPLASMS OF THE ILEUM—THE OXYTOXIC INFLUENCE OF QUININ—A LARGE BEQUEST TO THE PENNSYLVANIA HOSPITAL—THE ALIENISTS' REPORT ON A BOY MURDERER.

PHILADELPHIA, February 19, 1898.

PUBLIC interest in the typhoid situation has to some extent abated, in the face of other topics of the hour, and in realization of the fact that all agitation for the abatement of the pest by help of the city legislators is exertion uselessly expended. The people have expressed convincingly their opinions in the press, in mass meetings, and before Councils themselves, but to absolutely no avail in so far as securing an appropriation for an improved water-supply is concerned. So the question begins to become uninteresting to some, apathetic to others, and a wholly useless topic for discussion to all—the public, by a long apprenticeship, have grown accustomed to the prevalence of enteric fever, and they are inclined to look on it just as they look on the other preventable infectious diseases which we, in our much-heralded republican freedom, accept as necessary evils attending the present *fin-de-siècle* civilization. Public interest, it should be remarked, and not the interest of medical men, is on the wane. Physicians throughout the city continue to urge filtration, continue to demonstrate the wanton sacrifice in human lives which typhoid costs the city of Philadelphia, and continue to exert their every effort for the improvement of the situation, without, it must be

confessed, very tangible hopes of success. It has narrowed down to this point: that Councils refuse absolutely to comply with the popular demand for filtration of the water-supply, and that the arguments of the people and of the medical profession may, like Tennyson's brook, run on forever, and never so much as wear the faintest indication of a groove of humanity or common sense in the cerebra of these "city fathers" of ours. The whole affair is disgusting to every fair-minded Philadelphian. The fever-pest still continues, with, however, a decrease during the last two weeks in the number of new cases, which improvement is offset by a much higher death-rate. During the week ending February 19th there were 156 new cases, with 17 deaths reported, as compared to 185 new cases, with 21 deaths, for the week of February 12th. Since the epidemic began 1839 new cases of typhoid, and 196 deaths from this cause have been reported to the Board of Health. Further comment is unnecessary to the intelligent; it is unconvincing to the opponents of the filtration bill.

In spite of the general increase in infectious diseases and of the increased death-rate from diphtheria and scarlet fever, the death-rate in Philadelphia for the year 1897 was but 18.72 per thousand inhabitants—the lowest rate for thirteen years. The total number of deaths from all causes and at all periods of life was 22,735, or a decrease of 1247 from the previous year. It is also gratifying to note that the death-rate last year in children under five years of age was the lowest ever attained here, the deaths at this period of life numbering 33.45 per cent. of the total number of deaths, in both adults and children, from all causes. This is attributed, in a large extent, to a better personal acquaintance on the part of parents with laws of sanitation and with hygienic measures, and to the extensive municipal improvements which have been made in the poorer districts of the city, where formerly improper drainage and careless house-inspection kept the infant mortality at a high figure. In this connection, also, the highest credit must be rendered to the various "fresh-air" organizations, such as the Red Bank Sanitarium and the Country Week Association, for their humane and indispensable labors in caring for thousands of the little ones of the alleys and slums during the heated months; the value of their work cannot be estimated too highly.

Horwitz, at the last meeting of the Philadelphia County Medical Society, related his experience with the treatment of gonorrhea with methylene blue combined with the oils of sandalwood and cinnamon and the oleo-resin of copaiba, together with urethral irrigations with permanganate of potassium solutions of a strength of from 1-2000 to 1-1000. Methylene blue was given usually in 2-grain doses three times daily, but as this quantity was found to produce strangury and slight diarrhea in about twenty-five per cent. of the patients to whom it was given, the dose, in such instances, was diminished one-half. The combination of powdered nutmeg seemed to prevent, in a measure, these untoward symptoms. It was invariably the rule that the urine of patients receiving methylene blue was colored by the drug. Bacteriologic studies of



cases treated by this method showed that the addition of the anilin to the other drugs greatly adds to their germicidal power on the gonococcus; this fact was also demonstrated with solutions of methylene blue alone. Of 105 cases of specific urethritis thus treated by Horwitz, 77 were cured within three-weeks' time, 16 required four weeks to complete the cure, and the remaining number recovered within seven weeks. In cases of non-specific urethritis, on the other hand, it was maintained that the employment of methylene blue was of no value.

F. A. Packard, at the last meeting of the Pathological Society of Philadelphia, exhibited several curious specimens of a papillary new growth of the serous surface of the ileum, from a child dead of tuberculous peritonitis. The neoplasms consisted of numerous slender, whitish processes,  $\frac{1}{8}$ -inch in width and about  $\frac{1}{2}$ -inch in length, and were distributed over the serous surface of the ileum at the middle of its course; they consisted, microscopically, of collections of loosely formed areolar tissue enveloped with a serous covering, and having a central arterial canal. Inasmuch as the growths conformed to no known histologic type, their exact character could not be determined.

L. J. Hammond, in a paper read before the Obstetrical Society of Philadelphia, at the last meeting of this body, expressed the belief that quinin exercises a decidedly tonic effect upon the propulsive powers of the uterus during labor, particularly in women whose general muscular development is deficient or atonic. He administered the drug to 100 cases of parturient women, giving half-hourly doses of 10 grains until 30 grains had been taken. Of the thirty-eight primiparæ to whom quinin was given, there was an increase in the frequency and force of the uterine contractions in thirty-five cases; of the sixty-two multiparæ, an increase in the propulsive power was noted in thirty-one instances.

By the will of the late George Plumer Smith, who recently died in this city, a large sum of money is left to the Pennsylvania Hospital, and smaller amounts to other city and State charitable institutions. The entire amount left by the late Mr. Smith is nearly three-quarters of a million dollars, of which sum the entire residuary estate, amounting to about \$400,000, is bequeathed to the contributors of the Presbyterian Hospital. The sum of \$10,000 is also left to the Presbyterian Hospital of this city.

The inquiry into the mental condition of Samuel Henderson, the boy murderer, has been completed by the alienists appointed by the District Attorney, Drs. Chapin and Morton. Contrary to general expectations, the precise nature of their report will, it is announced by the authorities, be withheld from the public until the case comes up for trial, the time for which has not yet been decided upon.

During the week ending February 19th, the number of deaths reported from all causes in this city was 491, or 15 less than reported last week, and 39 less than those of the corresponding week of last year. Of this number, 148 were of children under five years of age. There were 82 new cases of diphtheria reported, with 25 deaths—the same number of cases and of deaths as reported last

week; scarlet-fever cases number 57, with 7 deaths from this cause.

### OUR BERLIN LETTER.

[From our Special Correspondent.]

THE NEW CHARITÉ AS IT WILL BE WITHIN FIVE YEARS—A PASTEUR INSTITUTE FOR BERLIN AND WHAT IT MEANS AS TO THE TREATMENT OF RABIES—NEW MEDICAL JOURNALS—THE MEDICO-LEGAL DIFFERENTIATION OF DEATH BY FREEZING.

BERLIN, February 17, 1898.

THE last number of the *Charité Annalen* (the report of the principal hospital here in Berlin) contains an interesting account of the early days of the Charité. So much of Berlin medical history is contained in the wards of this old hospital that it will always have a place in medical lore. Virchow, Frerichs, Traube, to say nothing of many others, did their great work here. The most interesting part of this account, however, is the future of the Charité; for at the beginning of the Twentieth Century the University of Berlin will have in the new Charité, just about to be built, one of the largest, most modern, best-appointed, and best-equipped hospitals for teaching purposes in the world. This is the confessed aim of the present administration and the question of money is not to stand in the way.

Those acquainted with the present Charité know how much this is needed. Those who know other hospitals about Berlin, Moabit, Friedrichshain, or the Kaiser and Kaiserin Friedrich Kinderspital in Reinickerdorf, know what a model hospital the modern German institution may be. Special pride is taken in making the new Charité in every way worthy of the medical center of the world, as, of course, every good German (need I say most every one else) considers Berlin to be.

Some 10,000,000 marks (\$2,500,000) are to be spent on improvement of the Charité within the next five years. Practically all of the old buildings are to disappear to make room for modern structures. Some of these are already under way. The new Pathological Institute, to cost 1,500,000 marks (\$375,000), is nearly completed. It has been a pet project of Professor Virchow's for many years to have the erection of the new institute under his direction before his death. The arrangements of the building will be such that it will surpass any thing in this line so far erected. It is to be hoped that the veteran professor will not say his *nunc dimittis*, until, working for some years in the new laboratories, he has proved how great are the opportunities still left in pathology. The Laboratory of Pharmacology and Toxicology is also well under way. The Department for Mental and Nervous Diseases is soon to be begun. It is a sign of the times and of the amount of attention that is being devoted on all sides to diseases of the nervous system, that, after the Pathological Institute, this department comes next in the amount to be appropriated for its new quarters, 1,200,000 marks (\$300,000) will be spent for its construction.

The whole plan of the new institution is on a magnificent scale. Government regulation of universities has its

disadvantages, but where the best interests of education are consulted, as they seem to be here, results may be accomplished which private effort could not attempt. Thanks to the farseeing liberality and generous interest of the government, though calls are made on it from all sides, Berlin is likely to retain the place she has held for the last thirty years as a leader in education, and especially in medicine. With opportunities such as will be afforded in the new clinics and laboratories, still more may be expected of her in the first half of the Twentieth Century, than has been the case in the latter half of the Nineteenth.

One item in the budget of expenses for the Institute of Infectious Diseases here in Berlin for the year 1898 is especially interesting. Four thousand marks (\$1000) is appropriated for the establishment, in connection with the Institute, of an experimental station for the treatment of rabies after the method of Pasteur. As yet the work is to be only tentative, it is said, but the change of front after the decided opposition that Pasteur's treatment has always met in Berlin, especially at the hands of Professor Koch and his school, makes the establishment of such a department in the Institute of which he is director a noteworthy and significant departure.

There has been no little uneasiness in many cities of Germany of late over reported cases of hydrophobia. From Hamburg and Dresden, as well as from about Berlin itself, such reports seemed not absolutely without foundation. From Königsberg, Breslau, and other places near the Russian frontier, came reports of cases, in which there could be no doubt that genuine lyssa was at work.

The German medical men who visited the International Medical Congress at Moscow were deeply impressed with the regard the Russians have for the Pasteur method of treating this disease. Their statistics showing its efficacy were freely distributed during the sessions of two or three of the sections. The Rabies Department of the Imperial Institute of Experimental Medicine of St. Petersburg was a striking object lesson. This institution is magnificently arranged, on a scale only second to that of the Pasteur Institute in Paris, if even this much is to be allowed.

Their results of treatment have been most satisfactory, and yet Russia is the hotbed of the most virulent form of rabies, from which probably most of the rabies of Europe comes. The wolves of the Steppes are often infected and give the disease to other animals. At times they attack men too, and their tendency to spring for the face and neck results in the most serious form of rabies. The virus is rapidly absorbed in large quantities, owing to the rich lymphatics of these parts; while the proximity of the point of infection to the nervous centers, in which by preference the virus localizes and reproduces itself, inevitably makes the infection extremely severe. The prognosis of head rabies, that is, the disease developing after a bite in the head region, is universally acknowledged to be particularly bad—yet it is with this class of cases that the tests in Russia were made.

Russian statistics on most things medical, as well as Russian medical and surgical opinions generally, will count for much more in the medical world since the profession has had a chance to see for itself the thoroughly

scientific quality of the work being done there. So it has been in this case. Now that Berlin has fallen into line we can confidently look for the establishment of Pasteur departments in most of the medical universities of Germany. The end of the opposition to Pasteur's method is at hand. It is probable that this will lead to a great many changes in opinions in America too, for Americans generally have taken their cue in the matter from the Germans rather than from the English. In England the best opinion has long since declared in favor of the treatment, and in the English Army, in the colonies at least, the bite of an animal thought by a physician or a veterinarian to have rabies, must be followed by the Pasteur treatment, if the affected individual is to retain his connection with the army.

Three new medical journals have seen the light in Germany within the last couple of months. It is an index of the immense number of medical journals that already exist over here, that practically all three of them are to be devoted to the reviewing and abstracting of other medical journals. The *Dermatologisches Centralblatt*, edited by Dr. Max Joseph here in Berlin is one. The *Medicine of the Present*, a sort of medical *Review of Reviews*, also to be issued here in Berlin, is another; while the third, *The Centralblatt für die Grenzgebiete der Medicin und Chirurgie* (Review of the Borderland Lying Between Medicine and Surgery), though edited by Dr. Hermann Schlesinger of Vienna, is published by Fischer of Jena, and is evidently intended to draw subscribers from all over Germany. It is to be a supplementary journal to the *Mittheilungen aus der Grenzgebiete*, etc. (Communications from the Borderland, etc.), edited by Professor Naunyn of Strassburg, and Mikulicz of Breslau, and which, though but a year or two old, is regarded as one of the standard medical journals here in Germany.

When so many *Reviews of Reviews* can find a place, it is no wonder that the disaffection among medical men, as to the volume of periodic literature that is being poured from the press, is on the increase. *Schmidt's Jahrbücher* reviews 170 important contributions to the literature of tabes which have appeared in the course of the last year. Some of them are volumes, many of them almost monographs. It is evident that for the practitioners, a still further degree of potency in the concentration of his medical literature will have to come, and we will ultimately have a *Review of the Reviews of Medical Reviews*.

Recently there have been some interesting contributions to the question of the means of deciding, with some assurance, whether people found dead, seemingly from exposure to cold, have really died from freezing or not. The well-known rose color of the cutaneous surface, which comes on as the result of cold, which paralyzes especially the peripheral vasomotor nerves just before death, is not always present, and may sometimes occur under other conditions. The recent study of that little-known condition, paroxysmal hemoglobinuria, seems to have supplied a new sign of valuable significance. In certain people whose red blood-cells are not quite normal, a great many of them perish when exposed to even slight cold, and hemoglobin appears in the urine. In even perfectly nor-

mal individuals, when exposed too long to severe cold, a certain amount of hemoglobin appears in the urine; so that in people frozen to death, it is claimed, this substance will always be found.

#### TRANSACTIONS OF FOREIGN SOCIETIES.

##### Paris.

A THEORY OF GRAVES' DISEASE—PROTARGOL, A NEW SILVER SALT FOR USE IN THE EYE—GASTRIC HEMORRHAGE—BLOOD-LETTING, EMETICS, AND BLISTERS—PERFORATING ULCER OF THE DUODENUM—HOLLOW RENAL CALCULUS—SURGICAL TREATMENT OF ULCER OF THE STOMACH—OPERATION IN UNUNITED FRACTURES—DANGERS OF PICRIC-ACID TREATMENT OF BURNS—ORCHITIS TREATED BY REFRIGERATION.

At the session of the Academy of Medicine, held January 11th, CORNIL spoke of a *theory of Graves' disease* which presupposes that the general condition which underlies this affection is an arthritism, and that the immediate cause is a thyroid insufficiency. In his opinion there are other conditions capable of preparing the organism for the advent of this disease. Infectious diseases which favor auto-intoxications may produce the conditions favoring the development of exophthalmic-goiter prebase-dowic states. In other words, in Basedow's disease there are two intoxications of different origin, one superimposed upon the other. The first is a diathetic intoxication whose principal localization is in the thyroid gland. The second, a result of the first, is the thyroid intoxication properly so-called. In accordance with this theory, treatment should be divided into two parts: the treatment of the general disease, and treatment of a symptomatic nature. The general treatment is hygienic. Symptomatic treatment consists in faradization of the carotid region. If this is frequently repeated there will rapidly follow an improvement in the condition of the patient practically equal to a cure.

DARIER mentioned the use of a *new silver salt in eye troubles—protargol*, which is a combination of protein and silver. This substance is not at all irritating, and besides its bactericidal property it also has the power of penetration, and presents the advantage of not being precipitated in solutions by albuminous material, by sulphids, or by alkalis.

At the meeting of January 18th, DIEULAFOY described *two cases of gastric hemorrhage* so great that in both life was endangered. One of these patients was successfully operated upon, and the blood was found to come from a very superficial ulceration, so slight that it was discovered with difficulty. The lesion was sutured, and there was no return of the hemorrhage. At the autopsy of the patient who was not operated upon, an exactly similar condition of affairs was found. As neither of these erosions had extended beyond the external layer of the mucous membrane, they could not properly be considered as "simple ulcers of the stomach;" though it is possible that they represent the initial stage of that disease. If gastric hemorrhage is slight, one may content himself with medical remedies to control it; but in all hemorrhage

which threatens life, recourse should be had to a surgical operation.

HAYEM expressed himself as astonished that any one should counsel operation in these cases, as many patients recover after extensive hemorrhage, under a treatment consisting of absolute rest in bed and a milk diet; to which injection of salt solution may sometimes be added with benefit.

At the session of January 25th, DUPLAY insisted upon the advantage of intravenous injections of large quantities (three pints) of artificial serum in surgical operations accompanied by severe hemorrhage. By this procedure he was able to save a patient upon whom he operated for gastric hemorrhage. In order to find the ulcer, which was upon the posterior surface of the stomach, the entire organ was inverted through an incision in its anterior wall. Marion has reported six similar operations in foreign countries with three deaths from collapse, two of them occurring within a few hours after operation. It is at least possible that these patients might have been saved by injections of saline solution. Gastro-enterostomy offers little hope of controlling the hemorrhage, and is not the operation to be chosen in these cases. The stomach should be widely opened and the ulcer sutured, or if need be, excised.

ROBIN read a paper upon *blood-letting, emetics, and blisters*, and advocated a return to their use. There can be no doubt he said that blood-letting increases respiratory exchanges and determines a superactivity of all the phenomena of nutrition. Emetics have a most powerful action upon the capacity and aeration of the lungs, upon the formation of carbonic-acid gas, and the absorption of oxygen. There is, therefore, a chemic as well as a mechanical reason to justify the use of emetics, especially in the treatment of bronchial affections. Repeated examination of patients treated by blisters has shown that the absorption of oxygen is increased by their use. This is apparently due to the fact that in a given time more air is drawn into the lungs.

At the session of the Surgical Society, held January 5th, SCHWARTZ referred to four cases of *perforating ulcer of the duodenum*, in three of which surgical relief was attempted. Unfortunately all four patients died. The diagnosis of peritonitis due to perforation of duodenal ulcers is often extremely difficult. The most likely errors are those of intestinal obstruction and peritonitis due to appendicitis. In a recent collection of twenty-three cases, it is noticed that seventeen mistakes of this character were made in diagnosis. The presence of absolute constipation and the absence of gas, as a result of paresis of the intestines, exists in cases of peritoneal septicemia, and the surgeon who has made a diagnosis of intestinal occlusion often closes the abdomen without having found anything whatever, and only at the autopsy is the condition revealed. The results of operation are not brilliant. In the twenty-three patients referred to, only three were cured. It is to be noted, however, that only five of these operations were performed in the first twenty-four hours after the onset of symptoms, two of the cures which resulted being among these five cases.



ROUTIER and HARTMANN mentioned instances in which they had failed to find the seat of the trouble, but had drained the abdomen. In both cases there was temporary improvement, life being prolonged for some days, but a permanent cure did not result.

TUFFIER reported a rare form of *hollow calculus of the kidney* found at autopsy upon the body of a man aged sixty-three years. Sections of the calculus showed that the inner layers were the most recent. Such a calculus apparently begins in an incrustation of the lining of the pelvis of the kidney.

At the session of January 12th, CHAPUT spoke of the *surgical treatment of ulcer of the stomach*. He mentioned five instances in which he had operated for ulcer of the stomach, with four recoveries. Two of the ulcers were of a carcinomatous nature. Twice he performed a gastro-enterostomy, twice a gastro-enterostomy combined with an entero-anastomosis, and once a pylorotomy. The one fatal case was complicated with an abscess of the pancreas. Chaput considered intestinal anastomosis an indispensable accompaniment of gastro-enterostomy. He preferred the retrocolic method.

PICQUE mentioned the value of *Hueter's sign* in deciding upon operation in *ununited fracture*. This sign is the lack of transmission of osseous vibration, noticeable when there is interposition of muscular tissues between the ends of the fractured bone. BERGER said that one ought not to wait more than fifteen days in such cases, and that if extension for that length of time does not result in union, operation is indicated. HENNEQUIN mentioned the fact that in very oblique fractures there might be absence of crepitus, without muscular interposition. The same might be true in transverse fractures, when periosteum had slipped in between the bones.

At the session of January 19th, WALTHER spoke of the *treatment of burns by picric acid*. It is too little known that this remedy may produce in children symptoms of acute poisoning; moreover, it frequently causes so much pain that its use has to be abandoned.

BRUN had seen a child of eighteen months die with vomiting, diarrhea, and a yellow color of the skin, which followed the treatment of burns of the leg with picric acid.

REYNIER said that picric acid may be used with benefit in superficial burns, as it often instantly relieves the pain. In deep burns, however, its use is contraindicated.

At the session of the Therapeutical Society, January 12th, DU CASTEL stated that the instances in which it is *necessary to treat in bed patients suffering from orchitis* are very rare. He further mentioned the fact that an antiphlogistic treatment of this affection is both useless and dangerous. As long ago as 1888, Diday showed that the application of ice gave great relief. Acting on this suggestion, Du Castel makes a superficial application of chlorid of methyl to the scrotum on the affected side, covers it with a light layer of cotton, and allows the patient to go about wearing a suspensory bandage. Refrigeration may also be performed with chlorid of ethyl if the chlorid of methyl is not obtainable. This treatment

has given good results, not only in uncomplicated cases, but also in those in which there is an associated inflammation of the tunica vaginalis. There are certain rebellious cases which will not respond to any remedies, but they, too, do as well under this method of treatment as under any other.

## SOCIETY PROCEEDINGS.

### NORTHWESTERN MEDICAL AND SURGICAL SOCIETY OF NEW YORK.

*Stated Meeting, Held January 19, 1898.*

THE President, L. DUNCAN BULKLEY, M.D., in the Chair.

DR. JOSEPH COLLINS read the paper of the evening, entitled

THE TREATMENT OF DELIRIUM. (See page 257.)

#### DISCUSSION.

DR. ROBERT A. MURRAY: There is one point upon which the author has not touched, and that is the difference in patients in their liability or non-liability to delirium. That some persons have a tendency to delirium is as well known as is the fact that some are more susceptible to the action of mydriatics and narcotics than are others. This is one of the things which most strikes the physician, especially in the treatment of children. The author's classification is certainly very good as a basis for therapy. In regard to baths, the warm bath has a better effect in most cases than the cold. Many of these patients, particularly women, are very restless, and a warm bath seems to better quiet the nervousness. The point which the author has made with reference to the proportionate relation of fever to delirium is well taken; but there is, however, a delirium which is dependent upon fever and which disappears when the temperature goes down. What has been said against the use of bromids in delirium is also good; for most physicians who occasionally see such cases in general practice seem to think that depressants are indicated, especially in alcoholic delirium. The treatment employed by the late Dr. Alonzo Clark, who gave the latter class of patients plenty of infusion of wormwood, put them in a padded cell, and watched the pulse, was not far out of the way. Much may be accomplished without the use of hypnotics, although necessity sometimes compels their administration. In such cases sulfonal is better than trional. In the delirium of pneumonia phenacetin with caffeine and codein has a good effect. The author's mention of the delirium of chorea brings to mind the delirium of rheumatism; for there is a delirium of rheumatism, and it very much resembles that which occurs in uremia. In these cases, when the temperature is high, the cool bath gives excellent results. There is also a delirium which is due to pain. As a rule, however, delirium is caused by poisoning due to the retention in the system of effete matter or to the entrance of extraneous poison.

DR. B. F. CURTIS: The paper is so exhaustive that it leaves but little to be added, except perhaps from a sur-

gical standpoint. The treatment of surgical delirium is generally a rather simple affair. It is usually due to septic infection and its accompanying fever, and is treated by the removal of the cause—sepsis. In the asthenic and typhoid forms of delirium treatment is of but little avail. Another form is that due to intoxication by iodoform, and it is hardly necessary to say that great care should be exercised in the use of this drug. In cases in which there is an extensive wound which has been dressed with iodoform, and delirium occurs, the dressing should be immediately removed. It is especially necessary to be on the watch for these symptoms in cases in which the patient is old.

This form of delirium is particularly likely to be manifested at night or when there is any rise of temperature. In such cases the mental state may remain perturbed and the patient practically insane for a time, and perhaps permanently so. In a case recently seen, that of a man sixty years of age, who had been operated upon for a very extensive tumor of the jaw, iodoform poisoning developed, and although every other condition cleared up, the dementia remained. As a rule, however, the delirium of senility is the easiest of all to treat. In surgical cases in the aged, if the patient is in fair health, the mind will generally remain clear if the bed is left as soon as possible and if nutrition is maintained. Stimulants are indicated, especially milk punches, which should be given at night during the fasting hours. In jaw cases, and these are often in old people, it is very necessary to get the patients out of bed as soon as possible. This may be done on the third or fourth day, even after removal of the upper jaw, unless there is much exhaustion from hemorrhage.

In regard to the delirium accompanying head injuries, I recently operated upon a patient for epilepsy in whom there was a cystic clot in the brain. The skull had been fractured five years before, and had been trephined at that time, a considerable amount of bone being removed leaving a gap in the skull the size of a silver quarter. The patient had also lost a good deal of brain substance, and there was present a left hemiplegia, which dated from the time of injury. Epilepsy had slowly developed, the spasms beginning on the left side, chiefly in the arm. Operation showed that the superficial part of the brain, just below the fissure of Rolando, was converted into loose cellular tissue containing serum in small cystic cavities, and the epilepsy had apparently been caused by its presence. Dr. Hammond, who was present at the operation, thought it would be best to remove all this cicatricial tissue, and this was done. The patient made a good recovery from the operation, although during the first twenty-four hours he had three very severe epileptic attacks. He was given sodium bromid, gr. xxv, three times daily. On the second day after the operation the temperature rose to 101° F., although the condition of the wound was aseptic. The temperature came rapidly down, and the drainage-tube was removed. About a week after the operation he began to act strangely, being excited and difficult to control, and the temperature began to rise. He complained of a great deal of headache and of pain in the

paralyzed side. The paralysis had not been increased by the operation, which did not, however, involve any of the motor centers. During the following two weeks the condition became worse, and the temperature was so high that I determined to reopen the wound. This was done, the incision being made to the depth of about an inch, and a small quantity (about half a dram) of broken-down tissue evacuated and a drainage-tube introduced. The temperature then went down and the patient became more manageable. The scalp has since fallen in where the bone was removed.

The most interesting feature in this case is that the temperature and the delirium did not seem to go together. The delirium was apparently an independent condition. It is also difficult to account for the temperature with the low degree of infection present; yet this would seem to have been the cause of the rise of temperature, for when the wound was reopened there was a cessation of the symptoms. In my experience, head injuries in which there is delirium are always accompanied by a septic condition. The temperature in these cases is a very poor guide to the presence of a septic condition, however.

DR. G. M. HAMMOND: I am very much pleased with Dr. Collins' paper. I do not think any of us will take issue with him in the main conclusions which he has reached. The principal thing is to induce sleep and maintain nutrition. I would like, however, to say a word of caution in regard to the use of sulfonal in these cases. Large quantities of it are required to produce sleep, and, if there is any degeneracy of the cardiac muscle, a serious result is apt to follow. Particularly is this likely to be the case in senile patients, in Bright's disease, and in typhoid fever. In a case of alcoholism I once gave 40 grains of sulfonal, and in thirty minutes the patient was in a state of collapse, and it was with difficulty that he was revived. I have also used chloral a number of times, particularly in alcoholic cases, and have never observed any unpleasant effects. I much prefer it to the other hypnotics. One point which the author mentioned but did not sufficiently emphasize is that these remedies are not given to patients to cure them, but to keep them quiet. This is sometimes necessary, although I strongly deprecate the practice of giving hypnotics to the nurse to be given to the patient as she may think necessary. I have known a nurse to give a patient as much as 1/15 of a grain of hyoscyamin to induce rest, thus rendering the patient unconscious for hours. This is a very dangerous practice, and, of course, should be deprecated.

I think I can agree with the previous speakers in regard to the use of the hot bath, for I have seen many cases in which it seemed preferable to the cold. It is much more grateful to the patient, particularly in rheumatic cases. The cold bath is probably more efficacious in a typhoid condition.

DR. S. H. DESSAU: I certainly concur in what has been said by the author. The paper is a most instructive one to the general practitioner, and the subject of classification has been handled in a masterly manner. The only point upon which I can add anything is that in regard to the delirium of pneumonia. The details which

the author has given us in regard to this show that the most serious form occurs in the streptococcic variety of pneumonia. I have found that in a certain number of cases occurring in children delirium occurs at the onset of the affection, especially when the apex of the lung is involved. In regard to the use of baths or the cold pack in the treatment of delirium of scarlet fever, this treatment has been approved by those who have had a wide experience in these cases. The temperature and the delirium seem to be so closely associated that it is difficult to think that the one is not dependent upon the other, although the author claims that the two conditions are entirely independent.

I have certainly been enlightened in regard to primary delirium due to parenchymatous encephalitis. Some years ago, before the present method of treating delirium was in vogue, I was called to see a robust young man who was in a most violent delirium. He had not been long in this condition, nor had he been using alcoholic liquors to excess. The temperature was 105° F. At that time veratrum viride was being used a great deal, and I thought I would try it. A young medical student living in the same house agreed to take care of the patient, and I gave him the remedy; to be guided in its administration entirely by the condition of the pulse, which was very full, bounding, and beating at the rate of 120 or 130 per minute. I left directions that the patient should be given a drop of the tincture of veratrum viride every hour until the pulse was brought down to 80. He was so violent that it required three men to hold him in bed. The treatment was carried out very carefully, and the next morning when I called he was asleep. Nothing was given but the veratrum viride, and it brought down the pulse and temperature and stopped the delirium.

DR. R. C. M. PAGE: In regard to the delirium of typhoid fever and pneumonia, it has been claimed by Bouchard, Epine, and others, that it is caused by impaired digestion, followed by the formation of ptomaines and a corresponding auto-intoxication. It seems to me that it is more dependent upon a weak heart and a diminished volume of blood with anemia of the brain. Many of these cases are relieved by proper stimulation, although I do not think that this stimulation acts as an antidote to the ptomain poison, but rather keeps up the heart and nourishes the brain beyond the point at which delirium is produced.

DR. J. RIDDLE GOFFE: The author has included the diseases and pathologic conditions in which delirium occurs in a masterly sweep which we can but admire. It is rather unusual for a symptom to be taken as the chief topic of a discussion; still, the interest which has been aroused by the subject in its various phases justifies the importance which has been given to it. My experience with delirium has been almost exclusively confined to puerperal and surgical cases, and treatment has been stimulation of the heart and attention to the bowels. In septic conditions following laparotomy the treatment has been the same. I have quite extensively used phenacetin, combined with codein and alcohol, in these cases, and with good results. I have had three

cases in which iodoform poisoning occurred, accompanied by a low, muttering delirium. I have employed no special treatment except to prevent further absorption. One of the cases, however, fell a victim several weeks later to the most aggravated attack of jaundice I ever saw. It is, of course, a question whether this could in any way be attributed to the iodoform poisoning.

DR. SIMON BARUCH: I regret that I did not hear all of the paper. I may say, however, that I am in accord with much the author has said, and especially would I emphasize the fact which he feared would not be accepted by the general practitioner, *i.e.*, the frequent lack of relationship between hyperpyrexia and delirium. There is no doubt in my mind that the two are usually independent of each other, especially in typhoid fever. The best proof of this is that at present I never see delirium in this disease in private practice, because I have the patient bathed by the Brand method from the fourth or fifth day—in suspicious cases—even before the diagnosis is made, whereas fifteen or twenty years ago, before I began bathing my patients, delirium was constantly a symptom, and I often find it present in hospital cases which are first seen late in the course of the disease. It has been claimed that the cold bath prevents delirium by reducing the temperature. I have always combated the boasted antithermic agency of the cold bath. While reduction of temperature is incidentally produced by it, it is the best agent we can employ because it counteracts the manifestations of toxemia, improves the impaired action of the heart, and is, therefore, the most reliable cardiac tonic we have when properly used. It reduces the temperature by favoring oxidation and elimination of toxic products, which are the essential factors in causing delirium, and enhances digestion and appetite. I cannot agree with the author that the delirium which occurs in the later stages of typhoid is due to exhaustion. In most cases I think it is the result of sepsis from local infection.

In the delirium occurring in the early stages of scarlet fever (sometimes without much rise of temperature) the best way to give the bath is to submerge the patient, then repeatedly and rapidly remove him from the bath, or a child may be placed in an empty tub, or one in which there is a little warm water, and one or more affusions over the back, chest, and head may be given, followed by very gentle rubbing, after which the child may be put to bed. This may be repeated every two hours; or a full bath at 85° F. reduced to 70° F. may be given for a few minutes. The same treatment can be employed with advantage in typhoid fever when the temperature is below 102° F., in cases in which there is delirium.

In delirium tremens I think powerful hypnotics and anodynes are contraindicated; hence, I always avoid them. In such cases attention to nutrition is the principal indication.

DR. COLLINS, in closing: The points which have been raised, with the exception of that made by Dr. Jacobus, are well taken. Dr. Curtis said that when delirium occurs after an operation upon the cranium, he feels sure



that there is septic infection. I presume this conclusion is based upon personal experience. I do not think that in many of the cases in which there is delirium following surgical operations that it is necessarily dependent upon the temperature.

I am much gratified by Dr. Amidon's remarks, but perhaps I shall be allowed to say that I am not so wedded to the use of sulfonal and trional that I cannot be divorced from them. They are agents which are less apt to do harm in the hands of the general practitioner than is chloral. Personally, I have had no disagreeable experience with chloral, but I know that the effect of its repeated use is hemolytic. It very rapidly destroys the red blood-corpuscles and produces profound anemia.

As to Dr. Jacobus' statement in regard to sunstroke, it should be said that in some cases of insolation there is no rise of temperature. Sunstroke has been proved to be dependent upon an acute intoxication, probably autotoxic, which causes in turn a parenchymatous encephalitis. I have now under treatment two cases of disseminated sclerosis which began last August as cases of sunstroke. In other words, the lesion in the beginning was acute disseminated encephalitis, the foci of which have undergone transformation into sclerosis. Van Gieson has shown that in some instances, if not in all, sunstroke is an acute toxemia. The poison acts upon the heat centers and produces fever. It acts upon the intellectual areas to produce delirium. It is faulty logic to say that the delirium is dependent upon the fever. Dr. Fruitnight has cited some examples of the widespread and deep-seated impression that flightiness is due to febrility, but I agree with him in denying it.

In regard to delirium tremens, it has seemed to me that physical restraint contributes to the great mortality. The most potent way of producing alcoholic pneumonia is by the use of the captive-sheet made fast across the patient's chest. I place two attendants in charge of such patients, and order  $\frac{1}{4}$ -grain calomel triturations every hour with a view to clearing out the intestinal tract. I do not often use sedatives, and can only repeat what has been said in the paper that it is a pernicious habit to give chloral and the bromids as a routine practice, and follow it up by digitalis to counteract the depressant effect which they produce. When the alimentary tract is in a condition to receive food and absorb it, recovery will ensue if attention is directed to alimentation alone. Naturally, I do not mean to say that oftentimes chloral and the bromids are not the most useful measures at our command, but they should be given cautiously. I am very much opposed to the hot bath in delirium tremens, for I have seen much depression and even collapse follow in cases in which there was an asthenic condition. In such cases the warm pack is better, for it is not followed by a depressant effect.

I have been gratified to hear Dr. Baruch's remarks, but I cannot agree with him in what he has said about typhoid fever, although I am well aware that to disagree with him on any point connected with the treatment of this disease must seem presumptuous. I believe that at the end of the third week of typhoid fever there is an asthenic general condition and an immune state of the blood

which does not lend itself to the further absorption of toxic products, whether septic or pathogenic. I believe, moreover, that the clinical manifestations are in entire accord with this statement. There are no evidences of infection at this stage, and I believe that the delirium which occurs is the delirium of exhaustion.

#### HARVARD MEDICAL SOCIETY OF NEW YORK.

*Stated Meeting, Held December 18, 1897.*

THE President, JOHN WINTERS BRANNAN, M.D., in the Chair.

DR. JOSEPH A. KENEFICK read the paper of the evening, entitled

SOME MANIFESTATIONS OF SYPHILIS IN THE UPPER RESPIRATORY TRACT. (See page 266.)

#### DISCUSSION.

DR. EUGENE FULLER: The author has said that late manifestations of syphilis of the respiratory tract are especially liable to occur in those patients who have not received careful treatment during the early stages of the disease, and this is true, still there are cases in which individuals have taken extremely good care of themselves and yet have had very troublesome late manifestations of syphilis. I have in mind a man whom I saw for the first time seven years ago, and who, during five years, religiously followed the treatment ordered, but he had on two occasions relapsing gummatous lesions which required the most heroic treatment.

In regard to the removal of bone in cases of syphilis of the air passages, I understood the author to say that he would be conservative in this particular, especially in cases in which there is necrosis of the turbinates, etc. I fully agree with him in this. It is much the better treatment not to interfere with bony structures. The diseased bone will come away of itself if left alone, and in this way there will result less loss of tissue than if operation were attempted. A patient of mine with necrosis of the jaw has been very persistent in his request that an operation be performed. This, however, I refused to do, and now the bone has become sequestered and only a small piece of it is coming away.

The subject of syphilis in connection with disease of the kidney is most interesting, but it is a question whether the mercury does the damage to the kidney or whether it is caused by the early syphilis. It has practically been decided that the latter theory is correct.

As far as stomatitis is concerned, it is best to persist in the administration of the mercury, and at the same time keep the mouth as clean as possible. For the latter purpose peroxid of hydrogen is very efficient as a mouth-wash.

DR. HOWARD LILIENTHAL: I have been particularly interested in the statement made by the author that the fact that a lesion rapidly resolves under antisyphilitic treatment does not necessarily prove that it is a syphilitic lesion. This is a point not often taken. In regard to operative treatment, I think that in cases in which there is circumscribed ulceration about the tongue, for instance, which does not respond to antisyphilitic treatment, op-

erative measures should be considered, and enough of the ulcer removed to permit microscopic examination.

Stomatitis should always be forestalled by the most rigorous care of the mouth and gums. I direct the patient to use a tooth-brush and a mouth-wash at least every three hours, and as a result I have not found it necessary to discontinue the treatment on account of stomatitis in cases in which this rule has been carried out. I have, however, observed cases in which salivation has occurred from neglect of the mouth, or in which the patient has been taking mercury on his own responsibility. In such cases the use of the remedy must be discontinued or the patient's general health will suffer.

DR. F. R. STURGIS: The author has spoken of the late appearance of secondary lesions. It is well to bear in mind that in the text-books the division of syphilis into stages is very misleading. Such secondary lesions as mucous patches, chronic and stubborn to treatment, often appear several years after the initial symptoms, and in some cases there is complete destruction of the hard and soft palates even during the first six months of the disease. This was the case in a patient of mine who was tuberculous, and who took the iodids very badly. His lesions were severe, and from the first were attended by ulceration. He died within a year. Late lesions are usually attended by destructive breaking down. The lesions of the nervous system which occur in the early stages are not, as a rule, as severe as when they appear late, nor are they as rebellious to treatment.

As to the question of whether treatment will prevent the development of late symptoms, I agree with Dr. Fuller, and believe that the best safe-guard is thorough treatment, although this does not always have the desired effect. It is here that the question of intermittent treatment must be considered. Mercury, when first given, acts as a stimulant and later as a depressant; if it is administered during a long period, the patient loses flesh and the red blood-corpuscles diminish in number. These symptoms are an indication for stopping the treatment. I believe, however, that a thorough course of mercury or iodid will usually place the patient in the best condition to withstand the late symptoms.

With regard to the kidneys, I also agree with Dr. Fuller. I am loath to believe that mercury properly administered ever produces disease of the kidneys. When lesions of this kind occur I believe that they are due to the syphilis and not to the mercury.

So far as the relative merits of mercury and iodid are concerned, I regard mercury as the right bower and the iodids as the left. The latter are useful on account of their rapid action in checking ulceration. In the early lesions the iodids are not of much service except as a tonic. I would confine the use of the iodids to those cases in which rapid therapeutic effect is desired, when there is loss of tissue, and especially in cases of syphilis of the nervous system. In these it should be given to the point of tolerance—until toxic effects are produced or the symptoms checked.

I also believe that the less we interfere surgically with a syphilitic lesion the better.

I am convinced that many cases of lupus reported as cured by the iodids are late manifestations of syphilis. Lupus invades cartilage and not bone; therefore, when there is ulceration of bone, the disease is syphilis. Given a lesion the nature of which is doubtful, and which is relieved by the iodids, I should be inclined to believe it syphilitic.

DR. CHARLES L. GIBSON: I would like to emphasize very strongly what Dr. Lillenthal has said in regard to the care of the mouth during the administration of mercury. I have always considered most severe those cases in which there are lesions of the upper air-passages. Patients presenting these lesions do not tolerate treatment well, consequently its effect is less marked. In some instances the hypodermic method of administering mercury is indicated. This method is especially applicable in the more severe cases.

In regard to the treatment of syphilitic bone lesions, I am not very familiar with such manifestations in the upper air-passages, but in regard to syphilis of the bones elsewhere in the body, I think that constitutional treatment is very limited in its effect. In such cases the treatment should be pushed as far as possible, and, when it is noticed that there is no further improvement, operation should be considered. I have had several cases in which operation has produced a wonderful effect after constitutional treatment had ceased to be of benefit.

DR. STURGIS: It has been noticed at the City Hospital that on Saturday and Sunday the mouths of syphilitic patients are always more tender, and I am convinced that this is due to the fact that they eat salt fish on Friday. The mouth symptoms are always more marked in salt-eaters. I am inclined to think that the salt is acted upon by the mercury and forms a bichlorid of this metal.

In regard to the treatment of bone lesions, it should always be remembered that the necrosis extends to the original limits of the ostitis, whether the process is located in the nose or elsewhere. My experience has been that interference aggravates the affection, so I am exceedingly cautious about meddling with necrosed bone in syphilitic subjects.

DR. FULLER: In regard to the question of the treatment of syphilitic bone-lesions, I do not think that the rule of non-interference holds good in cases in which the leg is involved. It has been said that these bone-lesions should be left alone and that repair will go on when the syphilitic element has been eliminated. When the tibia or fibula is involved, however, I think that the blood pressure caused by the patient walking about will prevent repair even when the syphilitic element has disappeared.

The question of the hypodermic injection of mercury is a very interesting one. I have employed for this purpose a solution of  $1\frac{1}{2}$  grains of salicylate of mercury to 30 minims of benzoinol. The injection should be made into the buttock, and care should be exercised in order to avoid introducing bubbles of air, otherwise severe pain will result. The first injection is apt to be more painful than subsequent ones. This treatment I have noticed on rare occasions to be followed by a fit of coughing which resembles the paroxysms of whooping-cough. Occasion-

ally a mercurial diarrhea will result. A strong mercurial odor of the breath will be noticed in cases in which the toleration point of the drug has been reached. This latter sign is a good test as regards further hypodermic medication, as such treatment should not be repeated while this odor persists.

DR. KENEFICK: In regard to the effect of mercury upon the kidneys, it is important that precautions be taken in every case to avoid overtaxing these organs.

One of the things to be considered in dealing with syphilis of the bone is the fact that the necrotic process begins at the point of bony and cartilaginous union. I quite agree with Dr. Fuller in regard to the advisability of non-interference with bone-lesions, except under certain conditions. In cases in which there is prolonged suppuration, in those especially accompanied by the many disagreeable features due to the presence of dead bone, the patient will often be glad to submit to operation.

## REVIEWS.

THE ORIGIN OF DISEASE. By ARTHUR V. MEIGS, M.D., Physician to the Pennsylvania Hospital. Pp. 229. Philadelphia: J. B. Lippincott Company, 1897.

THIS work, which is devoted especially to disease resulting from intrinsic as opposed to extrinsic causes, is based upon various papers published by the author during recent years, later elaborated and brought together in a volume which appeals to every thoughtful physician. When we read in the preface that "specialism therefore has gone sufficiently far, if not already too far, in medicine, and it is time that something be done to connect the various disjointed threads of knowledge, the true value of which can never be known until they are woven into a complete whole," we appreciate the effort which he has made to bring nearer together pathology and clinical medicine, and congratulate him upon his successful result.

After chapters devoted to an introduction, diseases of age, and origin of disease, there follow those presenting various conditions found in the blood-vessels, heart, lungs, liver, spleen, stomach, intestines, kidneys, and spinal cord. Not only is the text describing these excellent, but 137 original illustrations, drawn to scale and etched directly from the reflection by the camera lucida, give an accurate and at the same time vivid presentation of the tissues under consideration. No adequate synopsis of this book can be given within the compass of a review, but this much may be said: the course of disease is not to be sought for in a single organ, but rather in the involvement of many organs and tissues; many changes usually located in tissues are really dependent upon changes in blood-vessels; the essential condition in many apparently diverse pathologic results is practically one and the same; and finally the old terms, for example, Bright's disease, do not satisfy the present concept of the advanced internalist.

So while we are advancing in knowledge and finding that a broad interpretation of the results of mi-

croscopic research as given by the clinician adds to the sense of security with which he reaches his diagnosis, it is perfectly evident that this book will afford little satisfaction to those whose field of view is bounded by the edge of a cover-glass. As an example: "So far as concerns human beings, there is no existing evidence, either clinical or experimental, which can, when judiciously examined, be considered to show that consumption is infectious" (p. 28). Again: "Since it has been proven that cases of consumption do result from inflammation, and since at the same time it has not been scientifically demonstrated that the bacillus tuberculosis ever is its cause in human beings, but only that the bacillus is present in the altered tissues of persons suffering with the disease, it is much more logical to believe that consumption is only the result of ill-ordered growth and disintegration of the natural component parts of the organism" (p. 29). To this the pseudo-scientific hirelings of health boards will dissent and professional alarmists will continue to disturb the public for their own private ends. Among practical matters we may cite that compensatory hypertrophy of the heart, as ordinarily described and understood, has no existence; such hearts are degenerated and weakened (p. 84). Amyloid deposit is only a form of fibrous tissue in which there are few nuclei and great quantities of structureless substance (p. 150). The so-called new bile-ducts, the formation of which is the most pronounced feature of Charcot's hypertrophic cirrhosis of the liver, are not bile-ducts, but an early stage of cystic disease (pp. 109, 110). The three remaining chapters treat of the diagnosis, prognosis, and treatment of chronic disease, and are suggestive rather than specific, as, indeed, their brevity necessitates. In the last a change of the habit of the body, as the author expresses it, is believed to be of the most importance. We have read this book with unusual interest because it is instructive throughout, not in any narrow hemmed-in field, but in the broad domain of internal medicine. It bears intrinsic evidence that it is the work of an educated and accomplished physician, who is not only a student and careful observer, but a philosopher as well. The single criticism which we would make is in reference to "fragmentation" of heart muscle (p. 80), concerning which some recent work might have been reviewed. The dedication of this book is to Bright, Gull, and Sutton, who have added so much to knowledge in laying foundations upon which others have raised a substantial superstructure. Of this the author has given us a satisfactory and comprehensive view in a volume which is a credit to American medicine.

GENITO-URINARY SURGERY AND VENEREAL DISEASES. By J. WILLIAM WHITE, M.D., Professor of Clinical Surgery, University of Pennsylvania, and EDWARD MARTIN, M.D., Clinical Professor of Genito-Urinary Diseases, University of Pennsylvania. Two hundred and forty-three engravings and seven colored plates. Philadelphia: Lippincott & Co.

THIS work, which consists of over 1000 pages, is devoted to venereal diseases, syphilis, and the diseases of



the genito-urinary and sexual organs. The authors have endeavored to cover a very large field, and in making such an attempt have omitted much in the way of detail and description that is of great value to the physician and student as well. In several instances, anatomic and pathologic considerations are too briefly dealt with, and the omission of foot-notes, containing useful references and giving due credit to the authorities quoted in the text, is a great mistake in a book of such pretensions. The views expressed throughout the work in regard to this class of diseases are, with certain exceptions, in accord with those held by many authorities. We regret to see much diffuseness of statement and want of lucidity, as an example of which the following astonishing assertion is made: "In chronic anterior urethritis the urethrometers or acorn bougies will show in old cases certain points of lessened dilatibility. There will be no other symptoms, while in chronic posterior urethritis there are often tenesmus, prostatorrhea, frequent micturition, spermatorrhea, sexual irritation, increased desire, frequent pollutions, precipitate, often painful ejaculation, feeble erection, impotence, and neurasthenia." Such a conglomeration of varied symptoms as the above, strung together without any attempt at explanation or classification, is wholly unwarranted in a work which professes to be authoritative and scientific. In speaking of the treatment of chronic anterior urethritis, the authors say that "usually the meatus is found to be narrowed," and they advise meatotomy and the passage of full-sized sounds every few days. Such a broad statement as this, made without reserve, is highly dangerous, and if followed as routine treatment will lead to much discomfort and misery for the patient. Meatotomy is a valuable operation in selected cases, but its routine performance must be condemned as bad surgery. In describing external urethrotomy Souley's operation is not mentioned, and although his tunnel catheters, sounds, and filiforms are described and depicted, he is not even credited for their invention; this is an unfortunate omission, considering Souley's valuable contributions to genito-urinary surgery. Three lines are devoted to the treatment of stricture by electrolysis, and the work of Professor Fort of Paris is not even mentioned. Oversight of this kind renders the work of little value as a book of reference. Gonorrheal rheumatism has barely three pages allotted to it, and in speaking of its treatment no mention whatever is made of local urethral medication. This subject, therefore, cannot be considered up to date, and will not be of any aid to the physician who is treating such cases. In the treatment of chancroid, cauterization is given too prominent a place; the authors mention other methods, but say that "immediate and complete destruction of the chancroidal ulcer is the safest routine treatment," and recommend the actual cautery as the best instrument for the purpose. Such painful and routine treatment is not usually indicated in these days of antiseptic dressings and irrigations. Six very unsatisfactory chapters are devoted to syphilis, which is described at length, but it seems strange that the authors did not use their own cases to illustrate the text, as so many of the cuts they have em-

ployed, the colored ones especially, are far from good. Many of the chapters on genito-urinary surgery are very good, and one regrets that the authors did not confine their work to these subjects instead of padding it with desultory descriptions of syphilis and venereal diseases. The book is well gotten up, being clearly printed on good paper, but the illustrations are not, as a rule, up to the standard.

## THERAPEUTIC HINTS.

### For Pruritus Ani.—

℞ Sod. hyposulph.	. . . . .	℥ i
Ac. carbolic	. . . . .	℥ i ℥ i
Glycerini	. . . . .	℥ v
Aquæ dest.	. . . . . q. s. ad.	O i.

M. Sig. Apply on compresses to the anus.

**For Favus of the Nail.**—LEISTIKOW advises spraying the part with an ethereal solution of pyrogallol, and the subsequent application of the following mixture:

℞ Pyrogallol	. . . . .	gr. xxiv
β naphthol	. . . . .	gr. xxxii
Hydrarg. ammon.	. . . . .	gr. xv
Tinct. guaiaci	. . . . .	℥ i.

M. Sig. External use. Apply by means of a brush.

**For Herpes Labialis.**—Tincture of capsicum is highly recommended as an efficient early application.

### To Remove Freckles.—

℞ Nitrobenzene	. . . . .	gr. xv
Naphthalin	. . . . .	gr. lxxx
Milk of almonds	. . . . .	℥ v.

M. Sig. External use.

### For Sciatica.—

℞ Sol. nitroglycerin (1 per cent.)	. . . . .	3 ss
Tinct. capsici	. . . . .	3 iss
Aq. menth. pip.	. . . . .	3 iii.

M. Sig. Five drops three times daily in a small quantity of water; then increase to ten drops three times daily.—*Troussevitck.*

### For Irritable Bladder.—

℞ Salol	} aa . . . . .	3 li
Tinct. hyoscyami		
Inf. buchu.	. . . . . q. s. ad.	℥ vi.

M. Sig. One tablespoonful three times daily.

### For Follicular Tonsillitis.—

℞ Creosote	. . . . .	gtt. viii
Tinct. myrrhæ	} aa . . . . .	℥ ii
Glycerini		
Aq.	. . . . . q. s. ad.	℥ viii.

M. Sig. To be used as a gargle every two hours.

### For Seborrhea of the Scalp.—

℞ Captol	} aa . . . . .	gr. xv
Chloralis hydratis		
Acidi tartarici		
Ol. ricini		m. viii
Spiritus	. . . . .	℥ iii
Ol. rosæ	. . . . .	q. s.

M. Sig. Rub lightly into the scalp with the hand.—*Eichhoff.*